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NAVAL POSTGRADUATE SCHOOL MONTEREY, CALIFORNIA



INTELLECTUAL PROPERTY RIGHTS IN SOFTWARE ACQUIRED BY DOD

by

Robert B. Birmingham

December 1995

Thesis Advisor:

Mark W. Stone

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**INTELLECTUAL PROPERTY RIGHTS IN SOFTWARE ACQUIRED BY
DoD**

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Lieutenant, United States Navy
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Submitted in partial fulfillment
of the requirements for the degree of

MASTER OF SCIENCE IN MANAGEMENT


from the

**NAVAL POSTGRADUATE SCHOOL
December 1995**

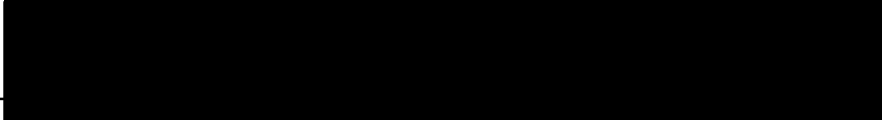
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ABSTRACT

This research reviews the intellectual property rights in software acquired by the Department of Defense (DoD). The intent of the study is to analyze the effectiveness of the DoD's policy concerning noncommercial software intellectual property rights. Surveys were developed to assess the current policy. Contracting officials in the military and commercial sector were the respondents to the interviews. The conclusions based on this research are that contracting officers do not fully understand the myriad of intellectual property rights management tools at their disposal. The research also uncovered the perception that DoD's overall policy in this area is fragmented and confusing. Recommendations include: (1) acquisition and contracting students of Federal acquisition programs should receive instruction in ADP or FIP (Federal Information Processing) acquisition, (2) acquisition and contracting students of Federal acquisition programs should receive increased class sessions on intellectual property rights, (3) DoD contracting personnel should increase usage of "specifically negotiated license rights" in software contracts, and (4) DoD contracting personnel should strengthen software contract solicitations.

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I. INTRODUCTION

A. BACKGROUND

Intellectual property rights in software present ongoing problems for the Department of Defense (DoD). This debate centers around the issue regarding the proper policy to adopt with respect to contractors' intellectual property in software. A survey conducted by the Software Engineering Institute in 1987 illustrated that the DoD has obtained more rights than necessary to meet its missions. Similarly, this unnecessary procurement of rights has hampered defense contractors in commercializing their software products. Complicated intellectual property rights, copyright, and trade secret laws produce a regulatory maze that inhibits both the Federal Government and private industry as well. Matthew Simchak, of the Washington, D.C. law firm of Wiley, Rein & Fielding, states:

...If you are involved in Government contracting you undoubtedly know how vital patents, technical data, and computer software rights are. If you don't know, than you must learn, for these rights mean product ownership of intellectual property-in both the present and the future-and how ownership will be determined. It is however, an unusually complex area, . . . , compounded by the Government's determination to completely retain title to the patents and technical data for products it has contracted for, and from the unique problems that can arise when computer software is the product at hand. [Ref. 9: p.1]

Garry Grossman, 1995, of the Fenwick & West Washington, D.C. law firm also states:

...that companies and contractors who sell or license software under private commercial contracts immediately discover that while selling to the Government can be profitable, it is a wholly different world, with a vast network of specialized regulations, rules, and procedures covering every step of the process. Further, . . . , supplying software involves a large number of unique problems and issues-some of which are covered by complex contract terms, all of which must be resolved by the vendor and the Government. [Ref.

10: p. 1]

The purpose of this research is to analyze the effectiveness of DoD's software data rights policy. The goal is development of lessons learned for future software rights procurement.

When one purchases renters insurance, common sense dictates that one does not excessively insure possessions worth only \$13,000.00 for \$100,000 dollars. Likewise, the Government, in particular the Department of Defense (DoD), does not need to buy the whole "kitchen sink" in the area of software data rights. How can the DoD accomplish this without losing access to the latest technology? More important, why should those who handle DoD major systems procurement be concerned with software data rights?

In 1987 the Software Engineering Institute conducted a survey of 141 DoD agencies, with 50% responding, and 288 private firms, with 34% responding. The study reported that DoD respondents needed to correct software obtained from contractors 70% of the time. Respondents from industry also felt in 42% of the cases that the DoD should always have this right to modify software, if developed at public expense. A second question asked, particularly relevant to major systems procurement, involved access to innovative technology. A total of 71% of industry respondents indicated they had chosen not to sell or license privately developed software to the DoD because of DoD's data rights policy. DoD conducted a similar survey which indicated "encounters with contractors and subcontractors who would not license privately developed software to DoD 35% of the time " [Ref. 3: p. 65].

These concerns highlight the ineffectiveness of the Federal policy. On the one hand the DoD needs to exercise its data rights more than previously thought, and on the other hand, contractors are refusing to give up these rights. Consequently, the DoD will have lost access to innovative technology in the long run.

B. OBJECTIVES

The primary objectives of this thesis are:

1. To provide background on software data rights and to ascertain the current climate that exists in the DoD for using these rights.
2. To measure the extent to which the DoD contracting personnel are familiar with intellectual property rights in software.
3. To measure the extent to which DoD is procuring unnecessary data rights and provide some lessons learned for future use by DoD Contracting Officers.

C. RESEARCH QUESTIONS

1. Primary Research Question

To what extent is the Department of Defense procuring unnecessary software rights?

2. Subsidiary Research Questions

- a. What are the intellectual property rights that apply to software?
- b. What are the current DoD procurement policies concerning software rights?
- c. What types of intellectual property rights are normally obtained in DoD software contracts?
- d. Do DoD contracting personnel have a good understanding of intellectual property rights in software?

- e. Do DoD contracting personnel have a good understanding of software terminology and development?

D. SCOPE OF THE THESIS

The focus of the research is limited to evaluation of current Federal and industry policy, finding out to what extent DoD is procuring unnecessary rights in software, and conclusive recommendations. Also examined is the extent to which DoD contracting personnel are familiar with intellectual property rights in software, software terminology and development. This research does not evaluate computer hardware, commercial off the shelf software, nor Government agencies outside DoD.

E. ASSUMPTIONS

This thesis was written under the following assumptions:

1. The reader has some knowledge of Federal Government Contracting regulations concerning intellectual property rights.
2. The reader has legal assistance available to clarify and enhance the information provided.

F. LITERATURE REVIEW AND METHODOLOGY

The methodology for the research consists of two components: development of a literature base and interviews with users of software from DoD and industry. The general literature base was developed primarily with materials via the Defense Logistics Studies Information Exchange (DLSIE), Software Engineering Institute studies, Internet searches, Systems Management Acquisition Library, and the Dudley-Knox Library at the Naval

Postgraduate School. Additionally, various Government Acquisition journals and periodicals were consulted. Phone surveys to DoD and industry users were taken. Roughly 70 organizations were asked to participate. An analysis of industry's perceptions in intellectual property rights in software acquired by DoD was going to be supplemented by comments from roughly twelve DoD buying organizations. A comparative analysis will not be conducted as only three DoD entities responded. However, pertinent remarks from these entities will be contained in Chapter IV.

G. ORGANIZATION

This thesis is arranged into five chapters. Chapter I provided a brief background of intellectual property rights in software and stated the objectives and research questions of the thesis. It delineated the scope, limitations, and assumptions of the thesis and outlined the methodology used to conduct the necessary research. The remainder of this thesis is organized as follows:

Chapter II, "Background," defines intellectual property rights that apply to software, discusses related legislation and outlines the current implementing regulations that apply to noncommercial software procurement.

Chapter III, "The Current Environment," describes the DoD procurement policies concerning software. Specifically, it describes the types of intellectual property rights that are normally obtained in DoD software contracts.

Chapter IV, "Data Interpretation and Analysis," provides an analysis of the data obtained from surveys of Industry personnel.

Lastly, Chapter V, “Conclusions and Recommendations,” summarizes the findings, analyzes the data addressed in previous chapters and makes conclusions and recommendations based on those data. This chapter answers the research questions and states recommendations for further research.

II. BACKGROUND

A. INTRODUCTION

The ownership rights in software are subject to controlling statutes, Government definitions, legislation, and implementing regulations. This chapter provides a background on what is meant by intellectual property rights, what is meant by noncommercial software, and finally what legislation and agency regulations are applicable. First is a description of relevant intellectual property rights.

B. SUMMARY OF LEGAL TERMS

Intellectual property rights in software are a combination of several distinct fields of law, all of which affect the software industry. This section focuses on brief descriptions of intellectual property rights in the area of Copyrights, Patents, and Trade Secret law.

1. Copyrights

It is common for computer software, deliverable under a Government contract to be published and copyrighted. Copyright protection extends to any

...original work of authorship in any tangible medium of expression. Generally, the owner of a copyright has the exclusive rights, among others, to (1) reproduce the copyrighted work and (2) prepare derivative works. Thus, copyrighted material is not available to the general public without the permission of the copyright owner through a license or other conveyance.
[Ref. 2: p. 10-12]

The general Government policy is to preserve a contractor's rights under the copyright laws while ensuring the Government usage is not an infringement of those rights. Under the

Federal Acquisition Regulation (FAR), contractors are

...normally authorized, without the permission of the Government, to establish claims of copyrights to technical or scientific articles based on or containing data first produced in the performance of a Government contract . . . and published in academic, technical, or professional journals and similar works.
[Ref. 2: p. 10-13]

The Department of Defense copyright position is that

...unless a work is designated a “special work”(such as a departmental history)-a contractor may copyright any work of authorship first generated under a contract as long as the contractor grants to the Government a royalty-free license to use the work for Government purposes.
[Ref. 2: p. 10-13]

Another aspect of the DoD’s policy is that

...unless written approval of the Contracting Officer is obtained, the contractor shall not include in any work generated under the contract any copyrighted material not owned by the contractor without acquiring a nonexclusive license for the benefit of the Government in the copyrighted work. [Ref. 2: p. 10-13]

The primary debate between DoD officials and industry in software copyright law is revealed in the following 1987 Software Engineering Institute survey result:

...45% of DoD respondents said that contractors should never be permitted to copyright software developed at public expense while 24% of the industry respondents said that they should always be allowed such copyrights.
[Ref. 3: p. 66]

In summary, the Government tries to acknowledge contractors’ copyright concerns while obtaining licenses to meet its minimum needs. Still there appears to be tension between the Government and contractors with respect to a contractor’s right to copyright or patent works developed at public expense.

2. Patents

If industry wants to protect a truly innovative approach to a program, or protect the underlying ideas behind the software, patent protection may be applicable. Patents serve as a complement to the copyright system by providing protection for the functional aspects of these innovations. The primary goal of patents is for inventors to publicly disclose their inventions in return for

...the right to exclude others from making, using, offering for sale, or selling the invention into the United States, and, if the invention is a process, of the right to exclude others from using, offering for sale or selling throughout the United States, or importing into the United States, products made by that process, referring to the specification for the particulars thereof.
[Ref. 11: p. 155]

Once granted, a patent owner is given this exclusive right for 20 years from the date the patent is applied for. In 1983, President Reagan decreed:

...patented processes or products developed under Federal programs have significant commercial value,
(2) properly used, they can improve industrial productivity and the overall national economy, and,
(3) allowing the contractor to retain title is the best incentive for developing an invention's commercial potential. [Ref. 2: p. 10-3]

In 1994, the Court of Federal Appeals for the Federal Circuit clarified software-related patents. In general,

...software can transform unpatentable objects into patentable ones and as such must be given weight in patentability determinations, but information per se and abstract ideas continue to be treated as non-statutory subject matter.
[Ref. 11: p. 167]

Previously, legal doctrine had precluded patents for software-related inventions independent of machines and processes as implemented on a computer. [Ref 11: p. 166] The

significance of this new ruling is that the “trend--as far as can be ascertained--is to provide a broader eligibility for software aspects of inventions than was available previously “[Ref 11: p. 167].

Within the software procurement arena there are two factions concerning patents:

...those who favor a title policy under which the Government would retain title to any patent resulting from an invention first conceived under an R&D contract and (b) those who favor a license policy under which the contractor retains full title to the patent for commercial purposes, while conveying a nonexclusive, nontransferable, paid up (royalty free) license to the Government to use the invention for Government purposes.
[Ref. 2: p. 10-2]

The second approach makes sense in that software contractors are more likely to be creative if they can generate future profits. This is the current Government policy.

3. Trade Secret

If a firm needs to protect the ideas or techniques contained in its source code, code as written by the programmer, a trade secret strategy may be applicable. A trade secret is defined as

...any formula, pattern, device or compilation of information which is used in one's business, and which gives him an opportunity to obtain an advantage over competitors who do not know or use it. [Ref. 11: p. 173]

However, trade secret protection is very limited. A trade secret holder is only protected from unauthorized disclosure and use of the trade secret by others and from another person obtaining the trade secret by some improper means. [Ref. 11: p. 173] There is no protection, therefore against reverse-engineering or the case where another party develops the same idea.

In summary, copyrights, patents, and trade secret law, form the legal underpinnings

behind software ownership.

C. DEFINITION OF RELEVANT TERMS

Besides a foundation in intellectual property rights, how the Government defines computer software and development is necessary to understand the current environment of software rights. The latest Defense Federal Acquisition Regulation Supplement (DFARS) update, September 29, 1995, lists:

For a full glossary, see Appendix B.

(1) Computer software means computer programs, source code, source code listings, object code listings, design details, algorithms, processes, dflow charts, formulae, and related material that would enable the software to be reproduced, recreated, or recompiled. Computer software does not include computer databases or computer software documentation.

(2) Commercial computer software means software developed or regularly used for nongovernmental purposes which-

- (i) Has been sold, leased, or licensed to the public;
- (ii) Has been offered for sale, lease or license to the public;
- (iii) Has not been offered, sold, leased, or licensed to the public but will be available for commercial sale, lease, or license in time to satisfy the delivery requirements of this contract; or
- (iv) Satisfies a criterion expressed in paragraph (a)(1)(i)(ii), or (iii) of this clause and would require only minor modification to meet the requirements of this contract

(3) Noncommercial computer software means software that does not qualify as commercial computer software under paragraph (a)(1) of this clause.

(4) Developed exclusively at private expense means development was accomplished entirely with costs charged to indirect cost pools, costs not allocated to a Government contract, or any combination thereof.

- (I) private expense determinations should be made at the lowest practicable level.
- (ii) Under fixed-price contracts, when total costs are greater than the firm-fixed-price or ceiling price of the contract, the additional development costs necessary to complete development shall not be considered when determining whether development was at Government, private, or mixed expense.

(5) Developed exclusively with Government funds means development was not accomplished exclusively or partially at private expense.

(6) Developed with mixed funding means development was accomplished partially with costs charged to indirect cost pools and/or costs not allocated to a Government contract, and partially with costs charged directly to a Government contract.

[Ref. 1: pp. 333490-91]

Understanding how software is defined, what is commercial vs. noncommercial, or developed at private expense vs. Government expense, is critical to understanding the current environment of software ownership. For example, public discord on the definition of software includes comments that the new DFARS definition of "commercial computer software" is too broad. These opponents argue that the definition's broad scope will make it difficult to understand and interpret and contractors will be able to restrict the Government's rights in software developed exclusively at Government expense by satisfying one of the criteria that define commercial computer software. Proponents of the definition argue that it is in accordance with Federal Acquisition Streamlining Act (FASA) of 1994 and that the Government "will not lose rights obtained in software developed at Government expense if that software subsequently qualifies as commercial computer software." [Ref. 1: p. 33467]

D. LEGISLATIVE HISTORY

Legislation provides the next step upon which intellectual property rights and definitions of DoD software are founded. These include, but are not limited to, the Brooks Act, the Paperwork Reduction Act, numerous amendments to the Brooks Act such as the Warner Amendment, and the Federal Acquisition Streamlining Act of 1994. For the stated

purpose of this analysis, a detailed history of the information revolution is not provided, but rather a quick review is provided.

The Brooks Act of 1965 established the framework, requirements, and responsibilities for procurement of automatic data processing equipment (ADPE). More important, "this structure gave the General Services Administration (GSA) the responsibility to coordinate all Government FIP (Federal Information Processing) management, subject to the Bureau of the Budget policy and fiscal controls." [Ref. 7: p. 14] The Paperwork Reduction Act of 1980

...was enacted to ensure that ADP and telecommunications technologies were acquired and used in a manner that improved service delivery and program management, increased productivity, reduced waste and fraud, and-whenever practical and appropriate-reduced the information processing burden for the Federal Government and for OMB's Office of Information and Regulatory Affairs was assigned overall authority for implementation of the ACT and defined paperwork reduction requirements in OMB Circular (A-130). [Ref. 7: p. 76]

A few significant changes modified the original Brooks Act. These include amendments such as the Warner Amendment of 1981, which exempted DoD from the Brooks Act for certain DoD procurements when National Security was threatened. Another change authorized GSA to give blanket delegation of authority to procure FIP to other agencies. A third, highly disputed decision, provided for the

...Outline of procedures and rules to be used in connection with any procurement dispute resolution of ADPE subject to the Act. These sections establish the General Services Board of Contract Appeals (GSBCA) to be the primary authority in reviewing disputes. [Ref. 7: p. 14]

The Federal Acquisition Streamlining Act of 1994, Public Law 103-355 (108 Stat. 3243) was signed on October 13, 1994. The Act, intended by Congress to simplify and streamline the way the Government buys goods and services, amended many of the Federal

acquisition laws. Specifically relating to DoD software procurement, the Act defined commercial items, modifying, 10 U.S.C. 2320(b), to

...provide a presumption of development at private expense for commercial items, and adds a new subsection (f) to U.S.C. 2321, that, under contracts for commercial items, requires a contracting officer to presume private expense development whether or not the contractor submits a justification in response to a challenge notice.

Also,

...this subsection provides that challenges under contracts for commercial can be sustained only if information provided by the Department of Defense demonstrates that the item was not developed exclusively at private expense. [Ref. 1: p. 33470]

Finally, implementing regulations will be briefly discussed.

E. IMPLEMENTING REGULATIONS

Pertinent implementing regulations relevant to DoD software ownership include the Federal Acquisition Regulation (FAR), the Defense Federal Acquisition Regulation Supplement (DFARS), and the Federal Information Resources Management Regulation (FIRMR). The Federal Acquisition Regulation or FAR is the primary set of regulations for all Federal executive agencies relating to Federal procurement. It is a lengthy document that establishes

...uniform policies and procedures for procurement of supplies and services (including construction). It applies to all such purchases made within or outside the United States for procurements that obligate appropriated funds. [Ref. 2: p. 2-6]

The Defense Federal Acquisition Regulation Supplement, or DFARS, is an Agency acquisition regulation that applies to all of the military and DoD agencies. Contained within

the DFARS are additional policies, procedures, solicitation provisions, or contract clauses that supplement the FAR to satisfy the specific need of the DoD. The FIRM, developed by the GSA, is the primary regulation for use by executive agencies in their acquisition of ADPE as defined in the amended Brooks Act. Specifically, how these regulations guide DoD software procurement is examined in the next chapter.

F. SUMMARY

This chapter introduces key legal terms, definitions, legislative history, and implementing regulations that are required to understand the environment surrounding ownership in software. This information delineates acceptable contractual software ownership rights. As stated earlier, the primary need of the DoD, in major systems procurement, as well as in general Government operations, is to obtain high quality software. The Government needs to be able to maintain and enhance or support, as well as reprocur this software. Private industry, on the other hand, needs to be able to protect its proprietary technology and commercialize its products in order to recoup its investment in the development of software, including software tools. A critical point noted is that the SEI study revealed that the DoD is losing access to innovative software technology;

...contractors indicated that approximately 65% of the time they are unwilling to make privately developed software tools available, and that 49% of the time they are unwilling to make privately developed applications programs available due to DoD's data rights policies. [Ref. 4: p. 17]

To understand how this new guidance affects software ownership by the DoD and industry, the next chapter reviews current Federal and defense policy concerning this issue.

Specifically, it covers in detail the types of intellectual property rights available to the Government.

III. THE CURRENT ENVIRONMENT

A. INTRODUCTION

The preceding chapter outlined several laws, controlling statutes, and definitions that form the basis of the Federal Government's general guiding principles concerning software rights. From this basis, the Federal Government has had to contend with the increased pace of technological advances:

...the emergence of integrated information technology is dramatically changing, and will continue to change, how people and businesses deal in and with information, and how works are created, reproduced, distributed, adapted, displayed, performed, owned, licensed, managed, presented, organized, sold, accessed, used, and stored. This leads, understandably, to call for an adaptation of --or change in--the law. [Ref 11: p. 12]

The Federal Government has had to contend with current attitudes which can be illustrated both by the 1987 SEI study and recent interviews. The SEI study reported that 81% of industry respondents versus 35% of DoD respondents said that the contractor should retain the right to commercialize software, if developed with Government funds or a combination of Government and private funds, under a DoD contract. [Ref 3: p. 69] A recent interview with industry: "No matter what the Government negotiates (in software contracts), it feels it can just come in and do whatever its wants to industry, after the fact." [Ref 12]. These concerns are further addressed in Chapter IV.

Currently, contractors must be aware of two separate rules for software rights, those found in the FAR and those found in the DFARS.

B. CURRENT FEDERAL POLICY

Government officials must weigh the rights and profit concerns of private industry against what is fair in utilizing all or a portion of the taxpayer's dollar to develop that item.

The Federal Acquisition Regulation (FAR) Part 27.104 states

...the Government honors the rights in data resulting from private developments and limits its demands to those data rights that are essential for Government purposes.

and

...the Government honors rights in patents, data, and copyrights, and it complies with the stipulations of law in using or acquiring such rights.

The Defense Federal Acquisition Regulation Supplement (DFARS) Part 227.7203.1 further illustrates this point,

...DoD policy is to acquire only the computer software and computer software documentation, and the rights in such software or documentation necessary to satisfy agency needs.

and

... Offerors and contractors shall not be prohibited or discouraged from furnishing or offering to furnish computer software developed exclusively at private expense solely because the Government's rights to use, modify, release, reproduce, perform, display, or disclose the software may be restricted. [Ref. 1: p. 33483]

Based upon these guiding principles, the Government has generated the following policies: FAR 27.402 states, Government agencies require data to obtain competition among suppliers, ensure appropriate use of research and development, meet specialized acquisition needs and ensure logistics support. Simultaneously, FAR 30.523(b) says that the Government recognizes that its contractors may have a legitimate proprietary interest in data resulting from

private investment. The DFARS provisions differ from the FAR in that the FAR concentrates on commercial software data products, while the DFARS is concerned with software unique to large military systems. Consequently, the DFARS provisions are more complex and consequently difficult to apply. Under DFARS 227.7203-2(b) (1), Acquisition of noncommercial computer software,

...data managers or other requirements personnel are responsible for identifying the Government's minimum needs. In addition to desired software performance, compatibility, or other technical considerations, needs determinations should consider such factors as multiple site or shared use requirements, whether the Government's software maintenance philosophy will require the right to modify or have third parties modify the software, and any special computer software documentation requirements.

Also,

...when reviewing offers received in response to solicitation, . . . , data managers must balance the original assessment of the Government's needs with prices offered.

In summary, the Government attempts to meet its minimum ownership needs, whether for competition purposes, maintenance or enhancement of software, or access to innovative technology. In theory, DoD contracting officers take into consideration the source of funds in software development, industry concerns, and negotiate fair and reasonable ownership rights.

Let us now examine the specific rights available in DoD software acquisitions.

C. TYPES OF RIGHTS

The DFARS provisions call for five types of Government rights in computer software, including (1) Unlimited Rights, (2) Restricted Rights, (3) Government Purpose License

Rights, (4) Specifically Negotiated License Rights, or (5) Rights in Derivative Computer Software.

1. Unlimited Rights

Unlimited Rights in data are that the Government buys the whole "kitchen sink." The data are solely funded in a Government contract, and are expressly specified as contract elements. Up until 1987, "even the most minor amount of Government money spent on software development has been deemed sufficient to give the DoD unlimited rights" [Ref 3: p. 16]. In this instance the Government has the right to use the data for any purpose.

DFARS 227.403 illustrates

...the right to use, duplicate, or disclose, in whole or in part, in any manner and for any purpose whatsoever, including the right to distribute the data to competitors to enable them to produce the same or similar equipment. [Ref. 1: p. 33485]

Industry opponents argue that although the contracts are solely publicly funded for development, the developer will use its production facility, which may include development expertise created with substantial private investment. Secondly, unlimited rights "empowers the Government to inject a contractor's trade secrets into the public domain, thus undermining the potential commercial market for the software" [Ref. 3: p. 6]. On the other hand, DoD Contracting Officers say that they have to modify the software so often that unlimited rights pose a lower administrative burden over alternatives [Ref. 3: p. 6]. A third concern is that,

... it might be inappropriate for the Government to obtain unlimited rights in all noncommercial computer software documentation required to be delivered under a contract. Computer software documentation is technical data. Such data are necessary for operation maintenance, installation, or training. Consequently, under 10 U.S.C. 2320, a contractor may not restrict the Government's rights to release or disclose such data or to permit others to use

the data. [Ref. 2: p. 14]

2. Restricted Rights

In technical data rights there are limited rights and restricted rights. Restricted rights specifically deal with software, while limited rights applies to all other data. If the Government obtains Restricted Rights, DFARS 227.7203-5 states that

...the Government obtains restricted rights in noncommercial computer software required to be delivered or otherwise provided to the Government under a contract that were developed exclusively at private expense.

Also,

...Contractors are not required to provide the Government additional rights in computer software delivered or otherwise provided to the Government with restricted rights. However, if the Government desires to obtain additional rights in software, the Contractor agrees to promptly enter into negotiations, . . . , to determine whether there are acceptable terms for transferring such rights. [Ref. 1: p. 33485]

The Government's rights to use, modify, reproduce, release, perform, display, or disclose this software is thus restricted [Ref. 1: p. 33495]. Basically, the DFARS has been updated to reflect commercial practices. If the contractor intends to deliver data with restricted rights, the Government must negotiate with the contractor to obtain any additional rights. The FAR and DFARS both include procedures to mark the restrictive data, or not as the case may be, and delineate numerous contract clauses that must be included in the contract. The regulations also allow "validation" procedures if the Contracting Officer feels that the data should not be restricted. Next reviewed are Government Purpose License Rights.

3. Government Purpose License Rights

Government Purpose License Rights are negotiated agreements to delineate rights in data developed with mixed private and Government funding. These flexible rights apply specifically to defense contracts at a level somewhere between unlimited and restricted rights.

DFARS 227.401 states,

...a developer gives the Government the right to use, duplicate, and disclose the data, and have or permit others to do so for Government purposes only.
[Ref. 1: p.33484]

Examples of Government Purpose Licenses include the right to use data to develop a second Source for future Government need. It does not, however, permit the second source to be a competitor in the commercial arena. The period during which Government purpose rights are effective is negotiable. The 252.227-7014 DFARS clause provides a nominal five year period of restriction which commences upon execution of the contract. Upon expiration of the Government purposes rights period,

...the Government has unlimited rights in the software including the right to authorize others to use data for commercial purposes.

On the other hand,

...during the Government purpose rights period, the Government may not use, or authorize other persons to use, computer software marked with Government purpose rights legends for commercial purposes. [Ref. 1: p 33484]

This theory puts forth the idea that the Government obtains software maintainability and long term support while the private firm maintains the capacity to generate revenue. The SEI study further illustrated this point:

...A policy allowing the developer to retain exclusive rights to commercialize

software provides a powerful incentive for investment of venture capital required for further development, adaptation to commercial applications and widespread commercial use. Since it is in DoD's interest to stimulate private investment in the commercialization of Government-funded software and to encourage the development of innovative technology, it should adopt a Government purpose license approach. [Ref. 3: p. 7]

The new regulations support this concept by promoting the inventive five year nominal period with conversion to unlimited rights.

4. Specifically Negotiated License Rights

Specifically negotiated license rights are where the parties negotiate to modify previous licenses or when the Government tries to obtain software it doesn't presently own:

...the standard license rights granted to the Government, . . . , including the period during which the Government shall have Government purpose rights in computer software, may be modified by mutual agreement to provide such rights as the parties consider appropriate. [Ref. 1: p. 33495]

5. Rights in Derivative Computer Software

Lastly, rights in derivative computer software are rights that protect the Government's rights in computer software and documentation even if the contractor subsequently uses these data to prepare derivative software:

...the Government shall retain its rights in the unchanged portions of any computer software delivered under this contract that the Contractor uses to prepare derivative software. [Ref. 1: p. 33495]

D. SUMMARY

This chapter delineated the basic rights available to the DoD in the arena of computer software. The next chapter presents an analysis of what rights the Government typically purchases, how well DoD contracting personnel understand this area, and industry perception

of the current DoD policy.

IV. DATA INTERPRETATION AND ANALYSIS

A. GENERAL

To assess the opinions of DoD and private industry contracting personnel regarding the use of Government rights in noncommercial software, this chapter presents a series of survey questions asked with analysis and discussion on the responses offered. The survey was sent to sixty industry firms and twelve DoD organizations involved in noncommercial software procurement. The surveys and associated cover letters are included as Appendices C and D. The industry survey was sent to contracting divisions of software firms listed in the June 1994 National Defense magazine [Ref. 13: p. 68]. The sixty firms were chosen based on the fact that they were the only firms listed as providing software to the Department of Defense. The DoD survey was sent to counsels for the major systems commands of the U.S. Navy and other DoD entities involved in software procurement. However, as only three responses were received for the DoD survey, a summary of pertinent remarks will be addressed in section H.

The survey had six major sections: demographics, type of legal protection procured, extent to which software rights are actually exercised, language of intellectual property rights, assessment of understanding on the part of DoD and contracting personnel of intellectual property rights in software, and assessment of the overall DoD policy. The separate DoD survey was identical to the industry survey except in two sections. In the demographics section, only the title and position of the respondents were asked for. In the exercise of rights section, DoD personnel were asked whether they had ever exercised their rights in

noncommercial software.

Of the sixty industry surveys mailed or phone interviews taken, twenty-nine replied, representing a 48.3% return rate. Two additional firms left voice mail messages refusing to participate in the survey. Of the twelve DoD surveys mailed, only three replied. Consequently, for the purposes of data interpretation and analysis, only the industry data will be examined.

B. DEMOGRAPHICS

Questions 1 through 3 were designed to provide demographic data on the industry respondents, including type of firm, amount of annual business with DoD, and number of employees. These data were obtained to identify trends within demographic groups.

Question #1:

Amount of annual business with DoD:

The firms responding had a fairly even distribution of annual business, as shown in Figure 1.

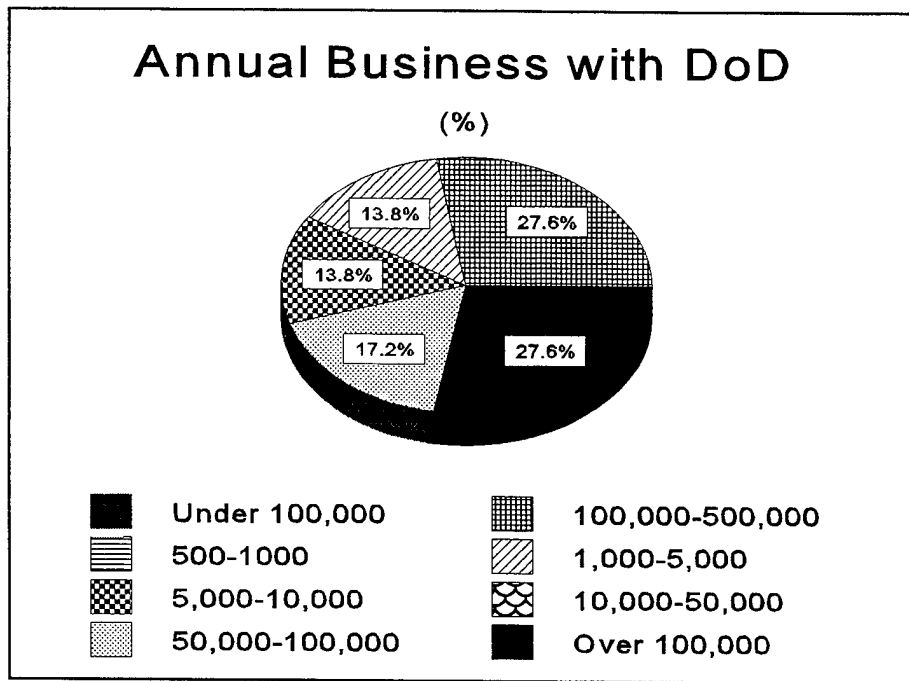


Figure 1. Responses to Question #1

Question #2:

Number of employees:

Those firms responding had a fairly even distribution of employee levels, as shown in

Figure 2.

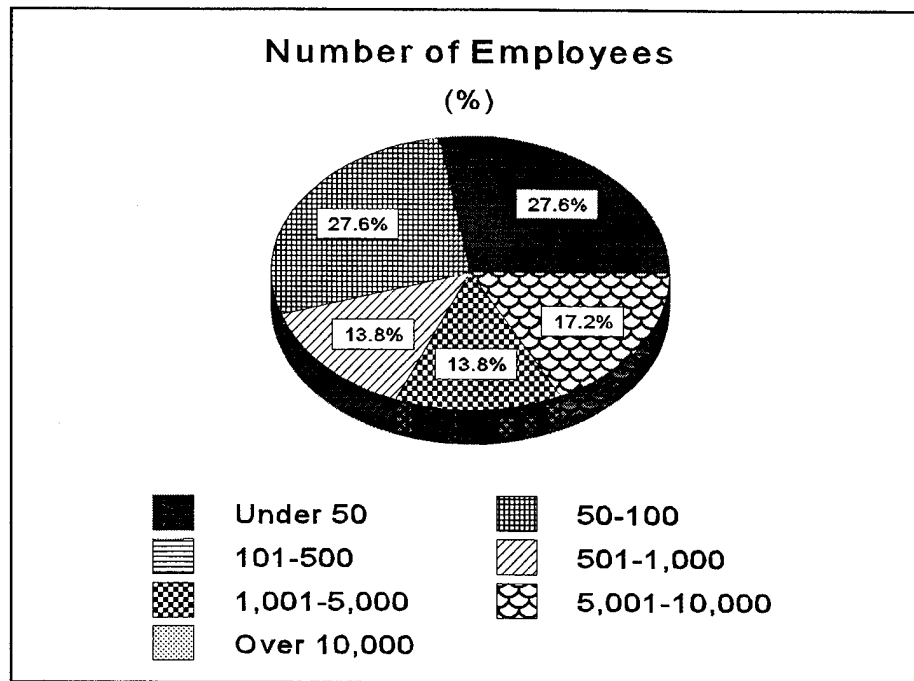


Figure 2. Responses to Question #2

Question #3:

What is your primary product or service?

The majority of respondents represented research and development products and services. Included in their responses were the following.

- ☐ Research and Development Services in Radar/Surveillance Area.
- ☐ Hi Tech R&D.
- ☐ Research and Development. Only approx. 25% deal directly with software which is primarily developed on Small Business Innovative Research (SBIR) programs.
- ☐ Engineering/Technical support to Navy labs, primarily related to underwater acoustics; engineering/program management support to Naval Sea Systems Command (NAVSEA).
- ☐ Communications, E.W.

- ☐ Security-Defense Preparedness. Mainly work with the Department Of Energy (DOE).
- ☐ Engineering and Technical Services.

C. TYPES OF INTELLECTUAL PROPERTY RIGHTS

This section includes questions 4 and 5. Their intent was to measure the type of legal protection normally procured in noncommercial software contracts. Also asked was whether the type of legal protection was different in their commercial contracts.

Question #4:

What type of legal protection do you normally seek in contracts involving ownership of noncommercial software with the DoD?

Respondents represented a wide and diverse set of answers. Included in their responses were the following.

- ☐ We try to retain as many rights as possible -sometimes with commercial that is not possible.
- ☐ We normally copyright our own software, but grant DoD a non-exclusive license to use it for DoD purposes only. If a patent is appropriate, we also use that avenue.
- ☐ Typically, we have "copyrighted" our own noncommercial software.
- ☐ We try to get the proper FAR clause included in the contract and disclose and negotiate "limited" rights to any company software before signing this contract.
- ☐ Question is unclear. We often employ patent, trade secret, and copyright protection to protect our software. Within a DoD contract, we will attempt to deliver software with restricted rights or Government Purpose Rights, if the software was developed entirely or partially with non-contract funding.

- ☐ One patented software product and copyrights.
- ☐ Attempt to negotiate some type of Government Purpose Rights though development of software is limited.

Question #5:

Is this different from your commercial contracts?

Of the completed surveys, the majority of respondents did not use different types of legal protection in their commercial contracts, as shown in Figure 3. The researcher had intended to determine that the rights granted were different for the commercial user but due to the wording of "type of legal protection" the researcher assumes that this is why respondents answered no to this question.

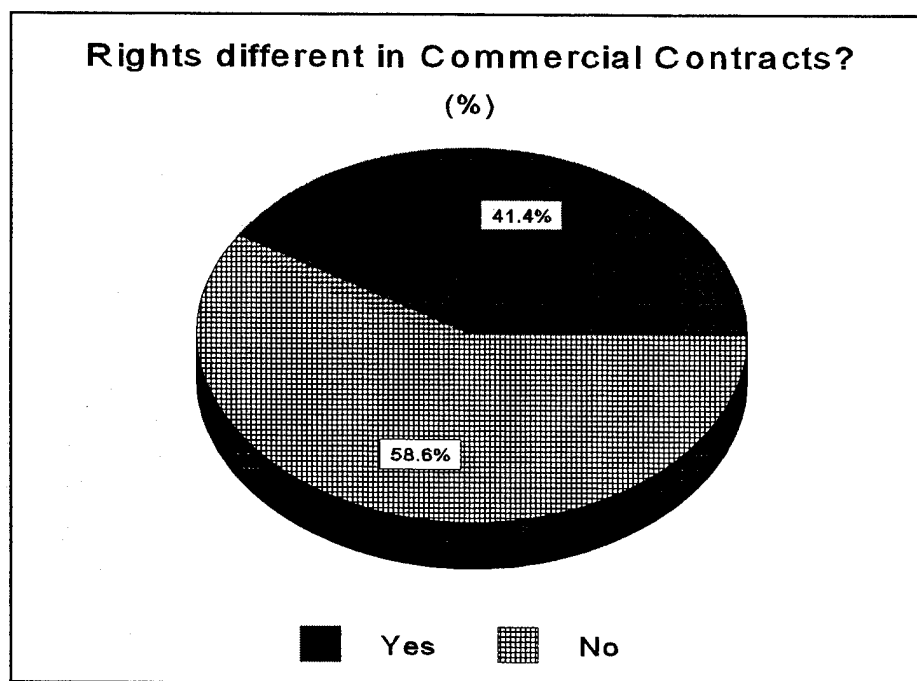


Figure 3. Responses to Question #5

Additional industry comments:

- ☐ We have only a small % (less than 1%) of our business in the commercial area.
- ☐ Our only "commercial" contracts are subcontracts to or from other DoD prime contractors.
- ☐ The type of legal protection (patent, etc.) is the same, the rights granted to the commercial user are different.
- ☐ Would seek to obtain very limited rights in our commercial contracts.

D. RIGHTS ACTUALLY EXERCISED

Question 6 was used to elicit responses to determine whether a representative sample of firms ever had the situation where DoD exercised its rights. The researcher had intended to use this as a follow up to the 1987 SEI study illustrating that the DoD often has to exercise its rights. However, the data did not support this intention.

Question #6:

Has the DoD ever exercised the Government's rights in any of your software contracts? If yes, please explain.

Of the completed surveys, the majority of firms responding never had the situation where the DoD exercised its intellectual property rights, as shown in Figure 4.

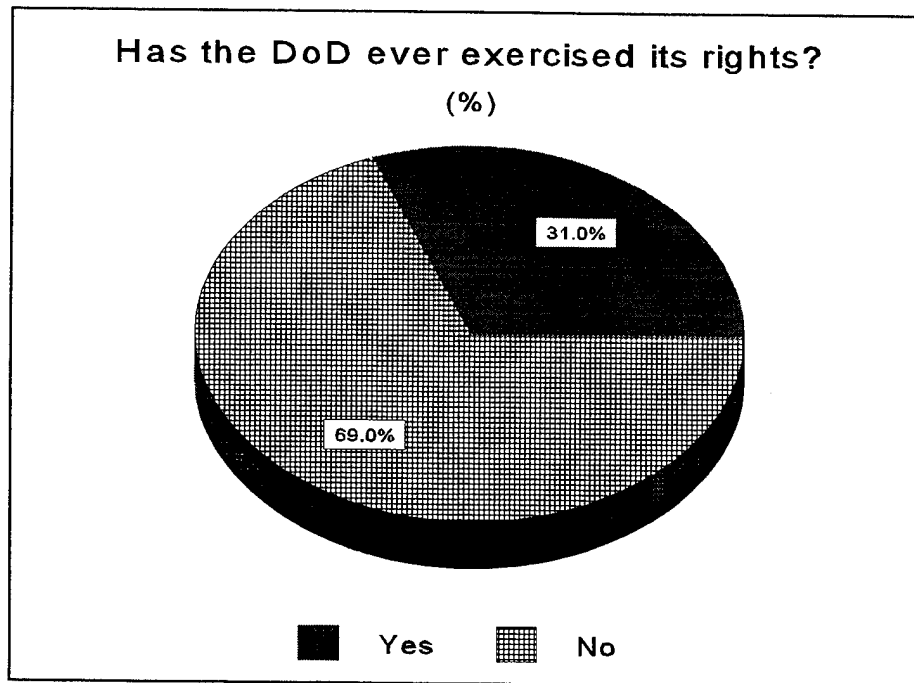


Figure 4. Responses to Question #6

Included in the responses of the firms answering yes:

- ☐ If you mean, "Unlimited," "Restricted," or "Government Purpose" rights - the respective rights govern the manner in which the Government can use the software, so the answer to your question is yes.
- ☐ Only when it was clear and agreed by both parties that the software was developed exclusively at Government expense.

E. LANGUAGE OF INTELLECTUAL PROPERTY RIGHTS

Questions 7 and 8 were intended to elicit responses regarding the language of DoD contracts and whether they could be made less confusing through the use of commercial wording.

Question #7:

Do you find the DoD contracts involving software intellectual property rights are confusing?

The majority of firms responding felt that DoD software contracts were confusing, as shown in Figure 5.

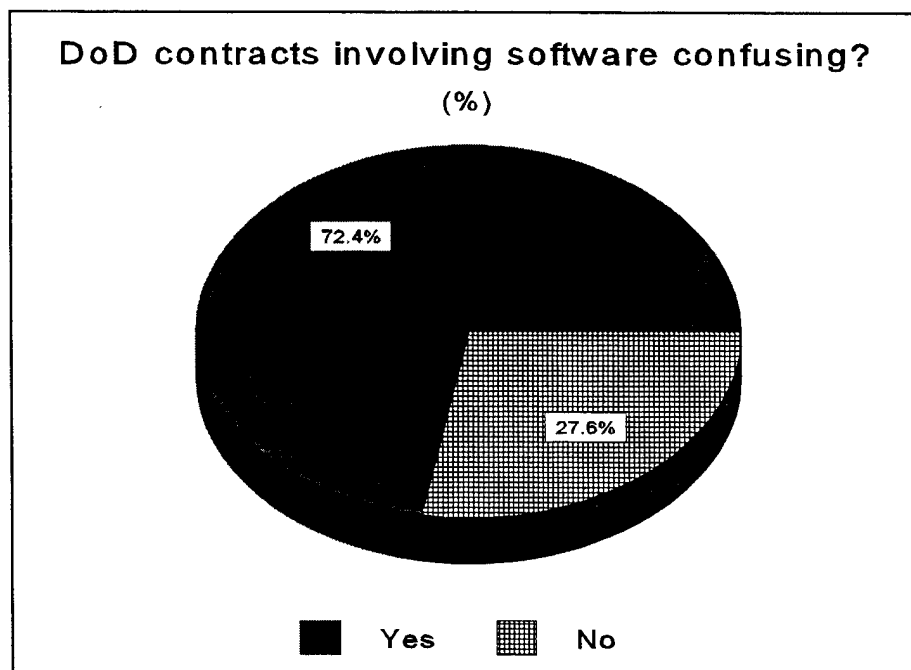


Figure 5. Responses to Question #7

Additional industry comments:

- ☐ Difficult.
- ☐ You have to spend the time and effort to be sure you have protected your companies rights when the contract is negotiated.

Question #8:

Would there be less confusion if the Government used commercial language in their software contracts?

The majority of industry respondents felt that commercial language would not make the software contracts less confusing, as shown in Figure 6. However, the demographics of the firms involved need to be reviewed. It is unclear what percentage of each firm's business was commercial vs. DoD. Consequently, it is possible that some of these firms do not have any commercial contracts.

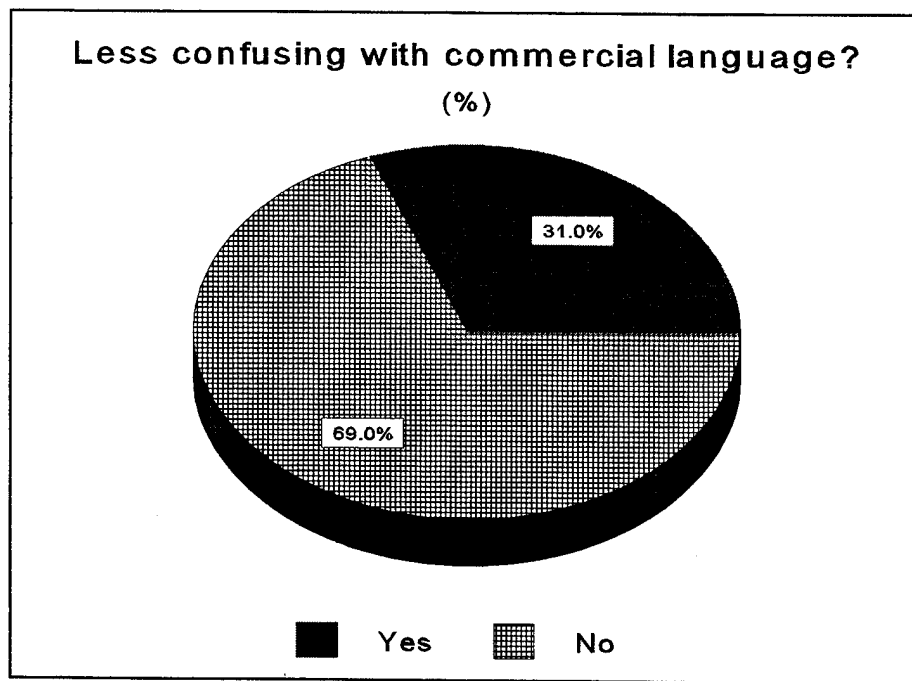


Figure 6. Responses to Question #8

Additional industry comments:

- ☐ I believe the structure (FAR) is in place to insure preservation of software rights in light of the new FAR streamlining changes.

- ☐ Industry is more familiar with language in commercial software contracts though it would certainly lead to increased litigation.

F. KNOWLEDGE OF INTELLECTUAL PROPERTY RIGHTS

Questions 9 through 11 were intended to elicit responses regarding general familiarity and use of the intellectual property rights by DoD contracting personnel, supplemented by respondent comments. Question 9 was intended to elicit comments regarding whether respondents had heard of special negotiated license rights. The intent was to determine whether the standard Unlimited, General Purpose License Rights, or Restricted options were still prevalent.

Respondents were asked to answer questions 10 and 11 by selecting from the choices of Agree, Neutral or Disagree. These questions were designed to elicit opinions on perception of knowledge of DoD contracting personnel in intellectual property rights in software.

Question #9:

Are you familiar with specifically negotiated license rights? If yes, what do you see as the advantages?

The majority of firms responding were familiar with specifically negotiated license rights, as shown in Figure 7.

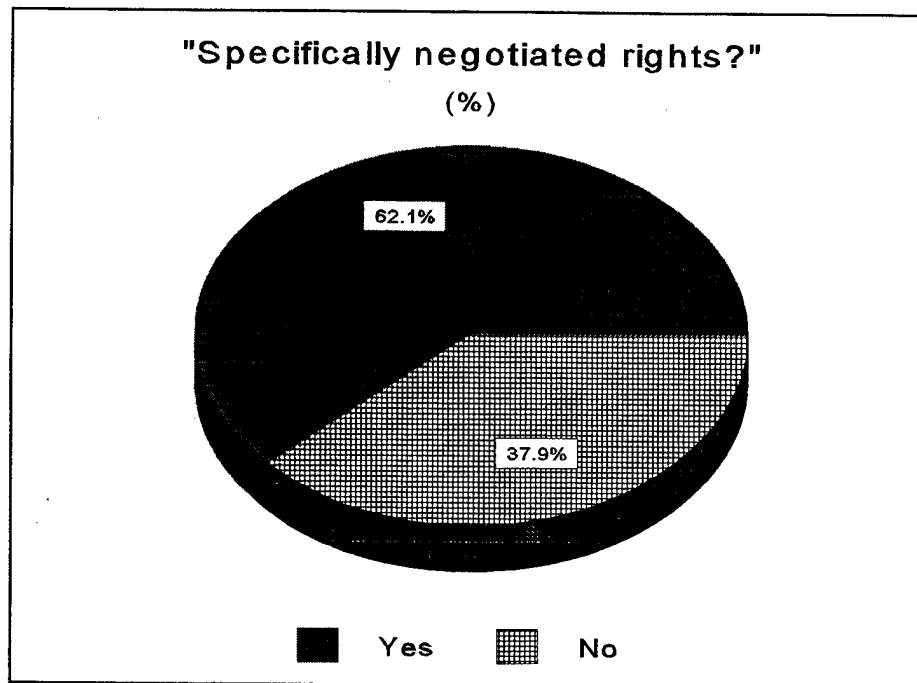


Figure 7. Responses to Question #9

Additional industry comments:

- ☐ We get to understand our position before we develop the software so that we can adjust our development accordingly.
- ☐ It allows a company to try and customize the rights to fix the unique conditions.
- ☐ Only in concept, not from experience. Valid concept, if license violations result in severe penalties to the abusers.
- ☐ The flexibility is a plus. My experience is that most contracting officers are hesitant to negotiate anything other than standard (Unlimited, Limited, and Government Purpose).
- ☐ A disadvantage from the contractors perspective is that it could force the developer to bid on follow on efforts to recover costs.

Question #10:

DoD contracting officers have a good understanding of intellectual property rights

involving software.

As shown in Figure 8, the majority of firms responding either were neutral or disagreed with this statement.

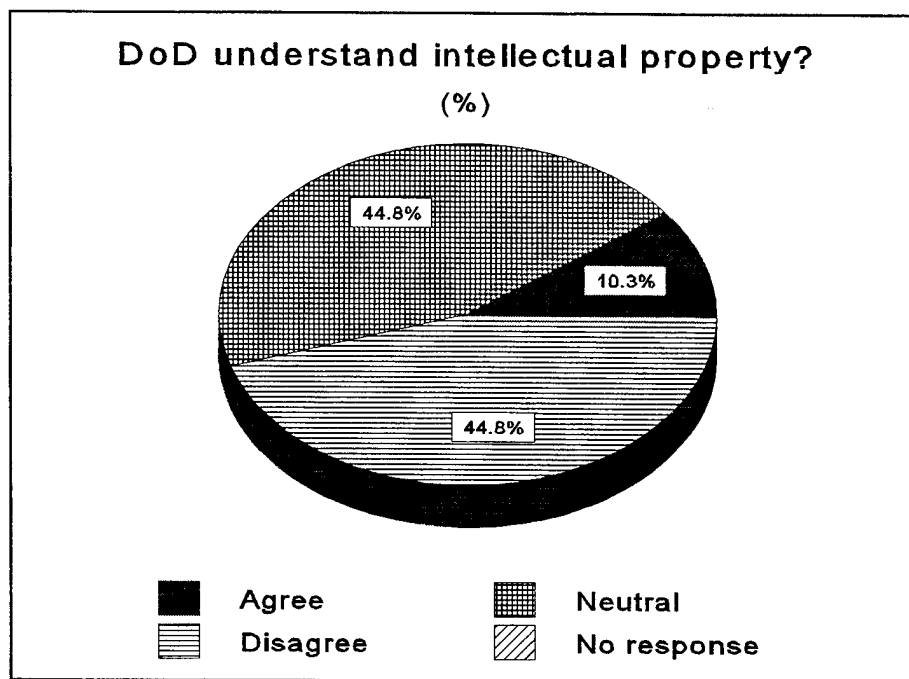


Figure 8. Responses to Question #10

Additional industry comments:

- ☐ DoD contracting personnel have a zero level of understanding of intellectual property rights in noncommercial software.

Question #11:

DoD contracting officers have a good understanding of software terminology and development.

The majority of respondents disagreed or were neutral in replying to this statement, as shown in Figure 9.

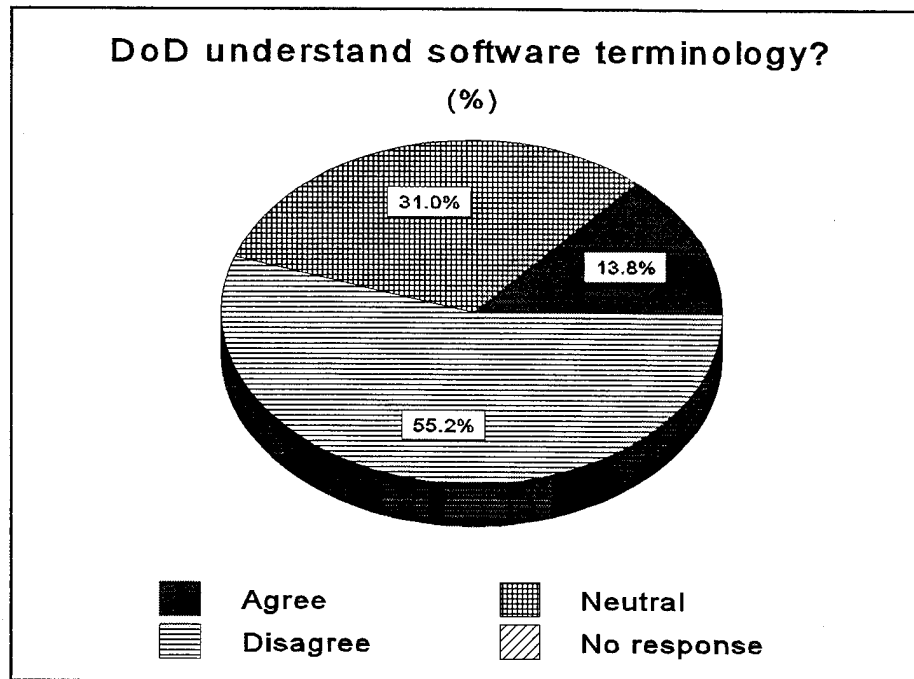


Figure 9. Responses to Question #11

Additional industry comments:

- ☐ ...DoD contracting personnel have a zero level of understanding of software terminology.

Respondents were asked to answer questions 12 through 14 by selecting from the choices of Agree, Neutral or Disagree. These questions were designed to elicit opinions on whether DoD contracting personnel procure unnecessary ownership rights in software.

Question #12:

DoD contracting officers normally negotiate only the minimum set of intellectual property rights of software necessary for the Government's purpose.

Approximately half of the respondents disagreed with the statement that DoD contracting officers normally negotiate unlimited rights in software, regardless of the source of funds, as shown in Figure 10. A small percentage, or 13.6%, agreed with the statement, and the remaining respondents were neutral.

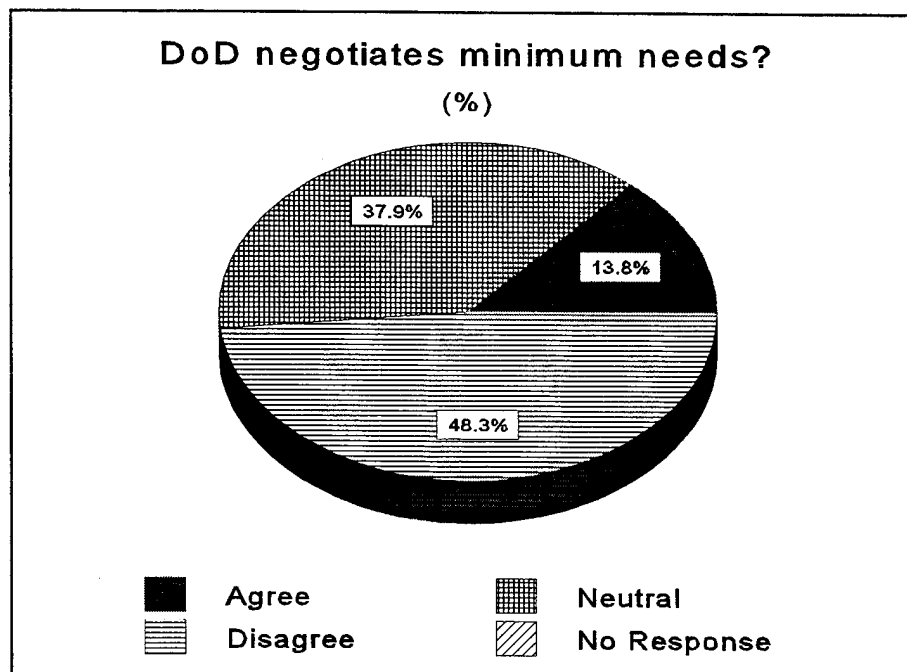


Figure 10. Responses to Question #12

Question #13:

Regardless of the source of funds, DoD Contracting Officers normally negotiate unlimited rights for software ownership.

Approximately 45% of the respondents disagreed with the statement that DoD contracting officers normally negotiate unlimited rights in software, regardless of the source of funds, as shown in Figure 11. A small percentage, 10.3 % agreed with the statement, and the remaining respondents were neutral.

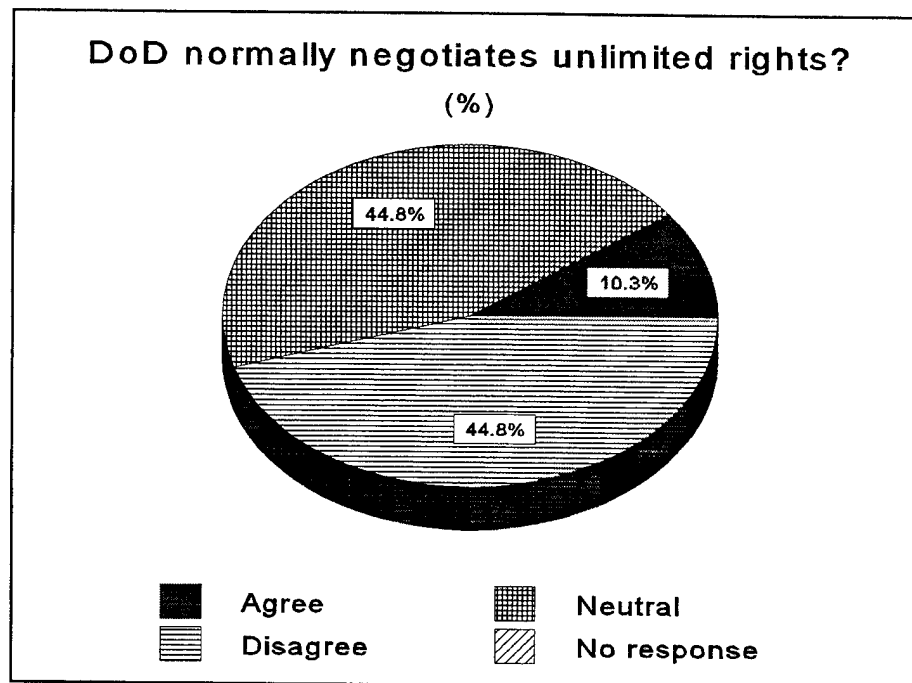


Figure 11. Responses to Question #13

Additional industry comments:

- ☐ At least they try to do this.

Question #14:

I frequently have significant differences with the contracting officer's negotiation position on intellectual property rights of noncommercial software.

A large majority of respondents, 67%, agreed with this statement, as shown in Figure 12.

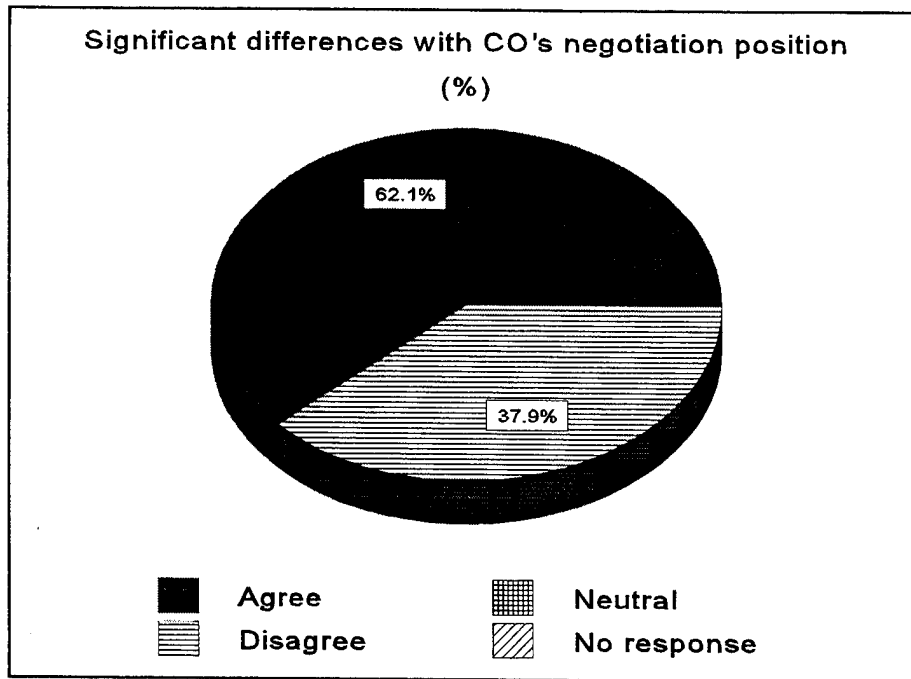


Figure 12. Responses to Question #14

Questions 15 through 18 were designed to elicit responses concerning overall general policy.

Question #15:

Copyright protection, and consequently licensing avenues, should extend to noncommercial software owned by the U.S. Government.

A large percentage of industry respondents, or 72.4%, agreed with this statement. The remaining respondents were neutral, as shown in Figure 13.

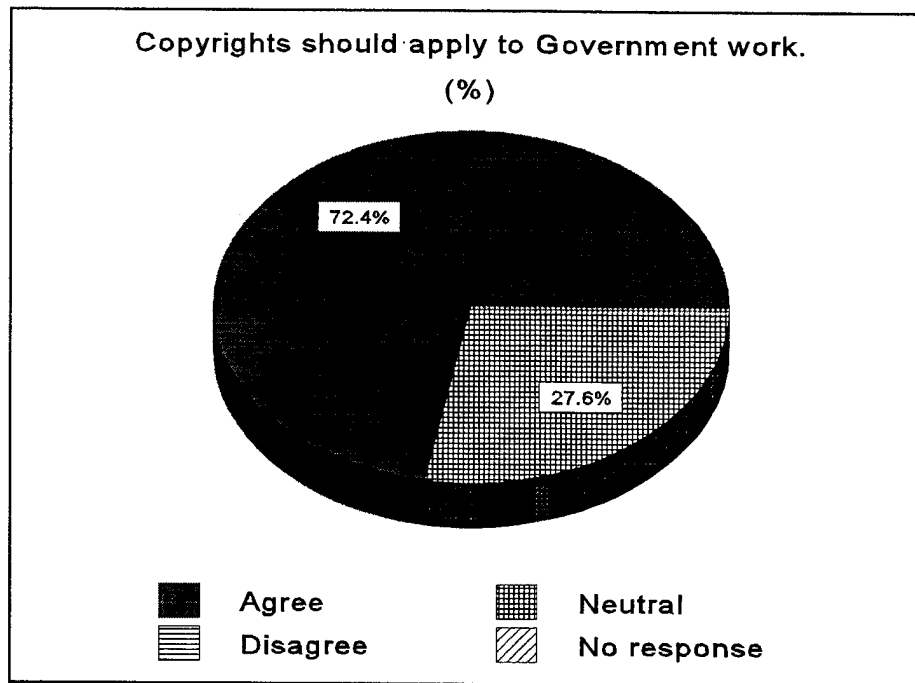


Figure 13. Responses to Question #15

Question #16:

The current DoD approach is sufficiently flexible to provide access to software to the majority of contractors.

A majority of respondents, 51.7%, disagreed with this statement. The remaining respondents were either neutral or agreed with this statement, as shown in Figure 14.

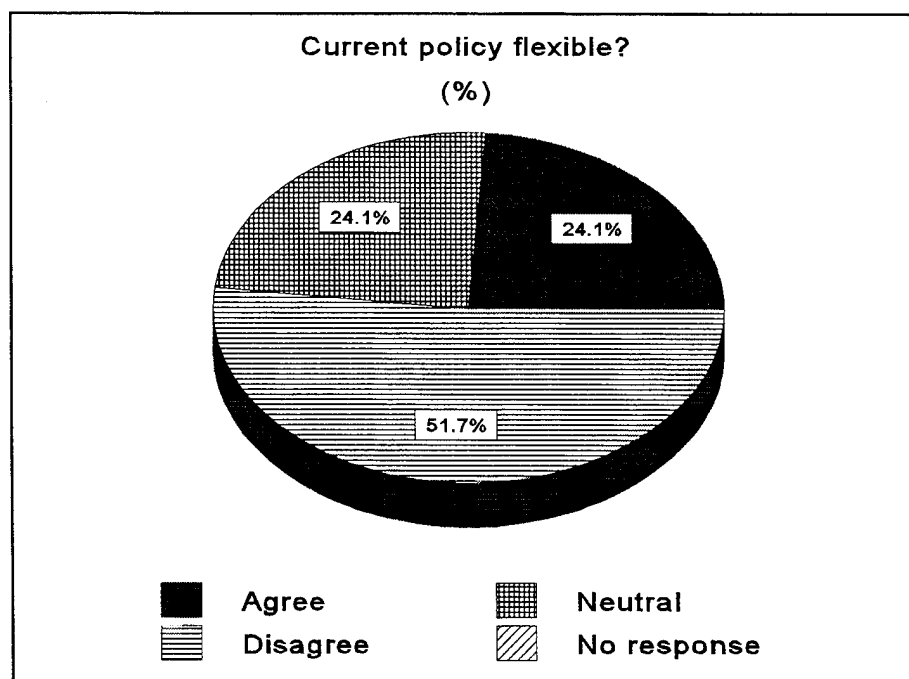


Figure 14. Responses to Question #16

Question #17:

How would you characterize DoD's intellectual property rights policy in software?

The majority of responses focused on a fragmented or ineffective policy. Included in their responses were the following:

- ☐ Beginning to recognize industries interest in ownership.
- ☐ Fragmented.
- ☐ Ineffective.
- ☐ They normally want unlimited rights in every software program. Regardless of who funded the development.
- ☐ Fairly reasonable. Mixed-funding situations cause the most problems.
- ☐ No matter what the Government negotiates, it feels it can just come in and do whatever its wants to industry.

- ☐ Very confusing and detailed.

Question #18:

What recommendations does your company have that would improve DoD policy on intellectual property rights as it currently exists?

Comments by respondents included the following:

- ☐ We would like exclusive rights of license to use.
- ☐ Provide a uniform policy.
- ☐ The Government must recognize the benefit of co-sponsoring software development and sharing in the rewards.
- ☐ Tie the rights to the intellectual property, not the software itself.
- ☐ Enforce penalties for violations.
- ☐ Encourage contracting officers to utilize the “specifically negotiated license rights” more often.

G. SUMMARY OF DATA PRESENTED

This chapter has presented the data received from respondents' questionnaires. The major points can be summarized as follows:

- ☐ The majority of respondents represented large and small firms specializing in research and development products or services.
- ☐ The majority of respondents did not use different types of legal protection in their commercial contracts.
- ☐ The majority of firms never had the situation where the DoD exercised its intellectual property rights.
- ☐ The majority of respondents felt that DoD software contracts were confusing.

- ☐ The majority of firms were familiar with specifically negotiated rights.
- ☐ The majority of firms either disagreed or were neutral to the statement that DoD contracting personnel understand intellectual property rights.
- ☐ The majority of firms either disagreed or were neutral to the statement that DoD contracting personnel understand software terminology and development.
- ☐ Approximately half of the respondents disagreed with the statement that DoD contracting officers normally negotiate unlimited rights in software, regardless of the source of funds.
- ☐ Approximately half of the respondents disagreed with the statement that DoD contracting officers normally negotiate unlimited rights in software, regardless of the source of funds.
- ☐ The majority of respondents stated they frequently have significant differences in intellectual property rights negotiation positions.
- ☐ Over half of the respondents disagreed with the statement that the current DoD policy is flexible enough to provide industry access to rights in software.

H. ANALYSIS

1. Demographics

A total of twenty-nine survey responses were received from private industry contracting professionals. Two additional firms left voice mail messages in which they refused to participate in the survey. No explanation was given. Possible motives for these refusals are that the firms no longer hold noncommercial software contracts, or for some internal reason, there was fear that release of this information could be used against them in some fashion.

As expected, all firms answering questions 1 through 3 were in either the research and development or engineering disciplines. Development of noncommercial software lends itself

to these type of contractors. Annual business was evenly spread out, as were the number of employees, reflecting representation of both small high-tech firms, as well as large established research and development firms.

2. Type of Legal Protection Procured

Of the twenty-nine survey responses, the range of answers to question 4 indicated that the type of legal protection utilized depended upon the situation. Answers were evenly distributed between copyrights and patents. When asked whether this was different from their commercial contracts, the majority or 58.6%, stated that no, they did not use different types of legal protection. The researcher had intended to determine whether the rights granted were different for the commercial user. Questions 4 and 5 were to be compared to questions 12 to 14 which involved unnecessary procurement of rights. However, the survey question asked about the "type of legal protection," and the responses were not helpful in comparing commercial and noncommercial intellectual property protection schemes.

3. Rights Actually Exercised

The majority of respondents, or 69%, stated that the DoD had not exercised the Government's rights in their noncommercial software contracts. The researcher had intended to follow up the 1987 SEI study and illustrate that the DoD often has had to exercise its rights, but the data did not support this conclusion. The implications of this result indicate either a shift away from the need to exercise intellectual property rights or additional rights are mutually negotiated. Follow-on research is needed to clarify this area.

4. Language of Intellectual Property Rights

The majority of respondents, or 72.4%, felt that DoD contracts involving software

intellectual property rights are confusing. As a follow on query, the research revealed that 69% felt that the contracts could not be made less confusing through the use of commercial license type language. As expected, industry feels that the contracts are confusing and this is in agreement with their later statements that the whole DoD policy is confusing. However, whether they can be made less confusing through commercial language is not so clear. The demographics of all the firms need to be further opened to include commercial as well as DoD software contracts. It is possible that the firms answering no do not have any commercial contracts, and therefore are completely unfamiliar with commercial license type language.

5. Knowledge of Intellectual Property Rights

Industry respondents were asked in question 9 whether they were familiar with specially negotiated license rights. Industry respondents were asked in questions 10 and 11 to evaluate DoD contracting personnel familiarity with intellectual property rights and software terminology and development.

The majority of industry respondents, or 62.1%, indicated that they were familiar with specifically negotiated rights. Additional comments were almost uniform in their praise for this avenue. A possible motive for this praise is that firms are more likely to protect their interests through this avenue instead of acquiescing to standard Government rights. Examples where this avenue would help include those cases where industry claims substantial private investment, while conversely, the Government claims public expense. Software development or maintenance, broken down into specific categories and negotiated, makes perfect business sense. The contract negotiations should be based upon situational factors such as planned software maintenance philosophy, and anticipated time or user sharing

requirements [Ref.1: p. 33485]. What the two parties deem appropriate is critical, not rights based solely on the source of funding. It allows partnering and flexibility, not standard procedures that are inequitable.

Only a small percentage of industry respondents felt that DoD contracting personnel had a grasp of intellectual property rights and software terminology and development. This indicates the perception of industry that DoD contracting personnel either do not have basic knowledge in this arena or rely exclusively on counsel or information technology experts for software related questions. This researcher contends that working knowledge on basic concepts, i.e., where to look, or who to talk to, in this multi-billion-dollar industry, is critical to determine fair and reasonable prices in software contracts. Almost every component in DoD high-tech major weapons procurement is controlled by some form of software. Resident experts are only there to provide counsel in making informed decisions. Decisions cannot be based upon receipt of information that is not understood.

6. Unnecessary Procurement of Rights in Software

The researcher had intended to follow up the 1987 SEI study to determine if DoD was still procuring unnecessary rights in software. Industry responses to questions 12 through 14 produced mixed results. On the one hand, the majority of industry respondents, or 62.1%, stated that they had significant differences with DoD's contracting negotiation positions. This result implies that industry felt the negotiators were asking for excessive rights. Also, only a small percentage, or 13.8%, felt that DoD negotiates only minimum needs. Again, this result is consistent with the idea that DoD requests rights beyond what is necessary. On the other hand, only a small percentage, or 10.3%, felt that the DoD normally negotiates unlimited

rights, regardless of the source of funds. This inconsistency illustrates an implication of a shift away in DoD from always negotiating as many rights as possible to listening to industry concerns. Another possible implication is that unlimited rights are simply less common now, but industry still feels that DoD's negotiation positions are still excessive.

7. Overall Policy

The majority of industry respondents felt that the DoD policy in software intellectual property rights is not flexible enough and is confusing. This result is not surprising given the maze of laws, definitions, and policies this research previously discussed. Notwithstanding, one also has to contend with evolving technological change, evolving legal precedents, and evolving Federal acquisition policy. When faced with such a preponderance of guidance, it must be expected that DoD contracting personnel lean toward a set of standard rights and stay away from innovative acquisition. A set of standard rights based on the source of funding can be fairly easily understood. However, industry concerns in software with future commercial development or prior substantial private investment must be recognized. DoD contracting personnel have the basic tools at hand to make flexible, practical business decisions. One such tool is to strengthen solicitations to better delineate rights in software to avoid confusion. Again, better defined requirements always lead to a better product or service.

The DFARS regulations, as presented in this research, were rewritten to make the overall policy more flexible and industry friendly. However, as illustrated, the perception in industry is that the DoD does not have working knowledge of the product or ownership, and this must be overcome prior to the DoD policy becoming utilized to its fullest potential.

8. DoD Comments.

In analyzing the three DoD responses received, one must understand that as only three responded, the following summary of pertinent remarks may not be representative of DoD organizations that deal in noncommercial software.

The three responses received were split in respect to the lack of knowledge on the part of DoD contracting personnel. Two disagreed with the statements concerning knowledge of intellectual property rights and software terminology, while the third concurred. Also, the responses were split when asked if there would be less confusion if the Government used commercial language in their software contracts. Two disagreed, and one concurred. The three responses were in complete accord on the following:

- ☐ Agreed that they have had to exercise software rights in the past. One commentator added "successfully."
- ☐ All were familiar with "specifically negotiated license rights."
- ☐ Disagreed with the statement that DoD software contracts and overall policy are confusing. One commentator added "not at all."
- ☐ Disagreed with the statements that DoD normally negotiates unlimited rights regardless of the source of funds.
- ☐ Agreed that copyright protection should extend to software owned by the U.S. Government.
- ☐ Agreed with the statement that the current DoD approach is flexible enough to provide access to software rights to the majority of contractors.

In general, the three DoD comments tended to support the current environment and disagree with industry perceptions in this area.

I. SUMMARY

This chapter examined industry and DoD responses to questions regarding the DoD policy in intellectual property rights in software acquired by DoD, and how industry perceives the current environment. Chapter V presents the conclusions and recommendations stemming from this research, answers the primary and subsidiary research questions, and suggests areas of further research.

V. CONCLUSIONS AND RECOMMENDATIONS

A. OVERVIEW

This chapter presents statements of conclusion to the thesis primary and subsidiary questions. It also provides recommendations and areas for further research. The conclusions are based on the literature review, survey analysis results, and interviews conducted.

B. CONCLUSIONS

1. Conclusion 1

The current perception by industry is that DoD contracting personnel have a low level of understanding of intellectual property rights in software. The complexity, different controlling regulations, and advancements in technology require almost exclusive reliance on specialized counsel in this area.

2. Conclusion 2

The current perception by industry is that DoD contracting personnel have a low level of understanding of software terminology and development. Again, the complexity, terminology, and advancements in technology require almost exclusive reliance on trained information technology management personnel in this area.

3. Conclusion 3

In follow up to the 1987 SEI study, **the perception is still prevalent in industry that DoD policy in intellectual property rights is not coherent** with descriptions such as "fragmented," "ineffective," or "confusing" used.

C. RECOMMENDATIONS

1. Recommendation 1

Acquisition and Contracting students at the Naval Postgraduate School and other Federal acquisition programs take a course in ADP or FIP (Federal Information Processing) acquisition. In this multi-billion-dollar a year industry, DoD contracting personnel must have at least a basic knowledge of software in order to successfully compete, maintain, or enhance components of major weapons systems.

2. Recommendation 2

Acquisition and Contracting students at the Naval Postgraduate school and other Federal acquisition programs to receive increased sessions in intellectual property rights in software. Again, in this multi-billion-dollar a year industry, DoD contracting personnel need to be able to report to acquisition billets with basic knowledge. As an illustration, at the Naval Postgraduate School, only one, one hour session is presently taught on intellectual property rights. With almost every sophisticated component of major systems controlled by software, it is critical that ownership of the intellectual property rights is sufficient to meet the Government's needs.

3. Recommendation 3

DoD contracting personnel should shrug off the standard rights (Unlimited, Limited, etc.) and increase usage of "specifically negotiated license rights" to its fullest potential. Survey respondents who were familiar with this option fully praised its values. This option allows individual negotiation on items which do not fall under the standard categories based on the source of funds. For example, as discussed earlier, specifically negotiated license rights

could cover the situation where although contracts are solely publicly funded for development, the developer could negotiate the fact that he used his production facility, which included development expertise created with substantial private investment.

4. Recommendation 4

DoD contracting officers should strengthen the actual solicitations presented to contractors. This would eliminate confusion in the software contracts through detailed contract line items. In fact, the current June 1995 promulgations require that Solicitations and contracts shall

...establish separate contract line items, to the extent practicable, for the computer software to be delivered and require offerors and contractors to price separately each deliverable data item. [Ref. 1: p. 33483]

In summary, through increased training and applying the full spectrum of property rights management tools available, noncommercial software procurement can be improved.

D. REVIEW OF RESEARCH QUESTIONS

1. Primary Research Question

To what extent is the Department of Defense procuring unnecessary software rights?

The research had intended to follow up the 1987 SEI study and illustrate that risk averse DoD contracting personnel are incentivized to always procure unlimited rights in noncommercial software. However, the data did not support this intention. This researcher assumes, based on additional comments, that there is a shift in DoD away from this mentality toward concern on behalf of industry maintaining their software's future potential.

2. Subsidiary Research Question 1

What are the intellectual property rights that apply to software?

Intellectual property rights, whether for industry or for DoD should provide economic benefit or protection. These serve as hedges against unforeseen future use. The courts are presently evolving how patents, copyrights, and trade secret law apply to software.

3. Subsidiary Research Question 2

What are the current DoD procurement policies concerning software rights?

The current DoD procurement policies characterized as fragmented and ineffective by industry respondents attempt to balance the Government's minimum needs and industry's proprietary data. The attempt is to be able to modify, maintain, and enhance software while encouraging industry to spend considerable amounts of money on development of future technology.

4. Subsidiary Research Question 3

What types of intellectual property rights does the Government normally negotiate for?

DoD can utilize Unlimited Rights, Restricted Rights, Government Purpose License Rights, Specifically Negotiated Rights, and/or Rights in Derivative Software.

5. Subsidiary Research Question 4

Do DoD contracting personnel have a good understanding of intellectual property rights in software?

In general, the industry perception is no, DoD contracting personnel do not have a good understanding of intellectual property rights in software.

6. Subsidiary Research Question 5

Do DoD contracting personnel have a good understanding of software terminology and development?

In general, the industry perception is no, DoD contracting personnel do not have a good understanding of software terminology and development.

E. AREAS FOR FURTHER RESEARCH

The following are areas for further research dealing with intellectual property rights in DoD software:

1. Focus on one area of intellectual property rights disputes, for example copyrights, and develop a similar analysis.
2. Conduct a review of the thought processes that the commercial industry uses in costing intellectual property rights. What returns on investment do they see and how can the Government use this information to obtain a fair and reasonable price.
3. Conduct an analysis measuring the extent to which DoD contracting officers actually received in the way of intellectual property rights vs. what they thought they were receiving.

F. FINAL THOUGHTS

The research attempted to illustrate that DoD contracting personnel are incentivized through risk aversion to obtain as much rights as possible (Unlimited Rights) to protect unforeseen contingencies. Also the research attempted to illustrate that contractors are incentivized to deliver as few rights (Restrictive Rights) as possible to protect a return on investment or future commercial use. In fact, what the research uncovered, was the

perception by industry of the lack of familiarity by DoD contracting personnel in the area of intellectual property rights in software. The perception is that DoD contracting officers rely heavily, "almost exclusively" on their counsels in this area.

As with specialized tax counsel, is this a bad idea? This researcher contends that contracting personnel need to know the basics of a multi-billion-dollar business. Secondly, maybe through this inexperience or lack of understanding, DoD contracting personnel lean toward procuring the maximum rights possible not the rights that meet the Government's minimum needs. There are numerous intellectual property rights avenues available to the DoD, depending upon the source of funding and each individual situation. DoD contracting personnel need to obtain basic knowledge in this area, use the flexible options provided, and take risks. It is the only way to maintain access to innovative technology and ensure future readiness. It is in the best interests of both parties to allow Adam Smith's "invisible hand" to dictate that the DoD does not pay too much for ownership rights and that private industry returns healthy dividends to its shareholders.

APPENDIX A. FEDERAL ACQUISITION REGULATION

PATENTS, DATA, AND COPYRIGHT

27.000 Scope of part:

This part prescribes policies, procedures, and contract clauses pertaining to patents and directs agencies to develop coverage for Rights in Data and Copyrights

SUBPART 27.1--GENERAL

27.101 Applicability.

The policies, procedures, and clauses prescribed by this Part 27 are applicable to all agencies. Agencies are authorized to adopt alternate policies, procedures, and clauses, but only to the extent determined necessary to meet the specific requirements of laws, executive orders, treaties, or international agreements. Any agency action adopting such alternate policies, procedures, and clauses shall be covered in published agency regulations

27.102 Reserved.

27.103 Policy

The policies pertaining to patents, data, and copyrights are set forth in this Part 27 and the related clauses in Part 52.

27.104 General guidance

(a) The Government encourages the maximum practical commercial use of inventions made while performing Government contracts.

(b) Generally, the Government will not refuse to award a contract on the grounds that the prospective contractor may infringe a patent.

© Generally, the Government encourages the use of inventions in performing contracts and, by appropriate contract clauses, authorizes and consents to such use, even though the inventions may be covered by U.S. patents and indemnification against infringement may be appropriate.

(d) Generally, the Government should be indemnified against infringement of U.S. patents resulting from performing contracts when the supplies or services acquired under the contracts normally are or have been sold or offered for sale by any supplier to the public in the commercial open market or are the same as such supplies or services with relatively minor modifications.

(e) The Government acquires supplies or services on a competitive basis in accordance with Part 6, but it is important that the efforts directed toward full and open competition not improperly demand or use data relating to private developments.

(f) The Government honors the rights in data resulting from private developments and limits its demands for such rights to those essential for Government purposes.

(g) The Government honors rights in patents, data, and copyrights, and complies with the stipulations of law in using or acquiring such rights.

(h) Generally, the Government requires that contractors obtain permission from copyright owners before including privately-owned copyrighted works in data required to be delivered under Government contracts.

SUBPART 27.2--PATENTS

27.200 **Scope of subpart.**

This subpart prescribes policy with respect to--

- (a) Patent infringement liability resulting from work performed by or for the Government;
- (b) Royalties payable in connection with performing Government contracts; and
- © Security requirements covering patent applications containing classified subject matter filed by contractors.

27.201 **Authorization and consent.**

27.201-1 **General.**

(a) In those cases where the Government has authorized or consented to the manufacture or use of an invention described in and covered by a patent of the United States, any suit for infringement of the patent based on the manufacture or use of the invention by or for the United States by a contractor (including a subcontractor at any tier) can be maintained only against the Government in the U.S. Claims Court and not against the contractor or subcontractor (28 U.S.C. 1498). To ensure that work by a contractor or subcontractor under a Government contract may not be enjoined by reason of patent infringement, the Government shall give authorization and consent in accordance with this regulation. The liability of the Government for damages in any such suit against it may, however, ultimately be borne by the contractor or subcontractor in accordance with the terms of any patent indemnity clause also included in the contract, and an authorization and consent clause does not detract from any patent indemnification commitment by the contractor or subcontractor. Therefore, both a patent indemnity clause and an authorization and consent clause may be included in the same contract.

(b) The contracting officer shall not include in any solicitation or contract--

(1) Any clause whereby the Government expressly agrees to indemnify the contractor against liability for patent infringement; or

(2) Any authorization and consent clause when both complete performance and delivery are outside the United States, its possessions, and Puerto Rico.

27.204-3 **Patents--notice of Government as a licensee.**

(a) When the Government is obligated to pay a royalty on a patent because of a license agreement between the Government and a patent owner and the contracting officer knows (or has reason to believe) that the licensed patent will be applicable to a prospective contract, the Government should furnish information relating to the royalty to prospective offerors since it serves the interest of both the Government and the offerors. In such situations, the contracting officer should include in the solicitation a notice of the license, the number of the patent, and the royalty rate recited in the license.

(b) When the Government is obligated to pay such a royalty, the solicitation should also require offerors to furnish information indicating whether or not each offeror is a licensee under the patent or the patent owner. This information is necessary so that the Government may either (1) evaluate an offeror's price by adding an amount equal to the royalty, or (2) negotiate a price reduction with an offeror-licensee when the offeror is licensed under the same patent at a lower royalty rate.

© If the Government is obligated to pay a royalty on a patent involved in the prospective contract, the contracting officer shall insert in the solicitation, substantially as shown, the provision at 52.227-7, Patents--Notice of Government Licensee.

SUBPART 27.3--**PATENT RIGHTS UNDER GOVERNMENT CONTRACTS**

27.300 **Scope of subpart.**

This subpart prescribes policies, procedures, and contract clauses with respect to inventions made in the performance of work under a Government contract or subcontract thereunder if a purpose of the contract or

subcontract is the conduct of experimental, developmental, or research work, except to the extent statutory requirements necessitate different agency policies, procedures, and clauses as specified in agency supplemental regulations.

27.301 **Definitions.**

"Invention," as used in this subpart, means any invention or discovery that is or may be patentable or otherwise protectable under title 35 of the U.S. Code or any novel variety of plant that is or may be protectable under the Plant Variety Protection Act (7 U.S.C. 2321, et seq.).

"Made," as used in this subpart, when used in relation to any invention, means the conception or first actual reduction to practice of such invention.

"Nonprofit organization," as used in this subpart, means a university or other institution of higher education or an organization of the type described in section 501(c)(3) of the Internal Revenue Code of 1954 (26 U.S.C. 501(c)) and exempt from taxation under section 501(a) of the Internal Revenue Code (26 U.S.C. 501(a)), or any nonprofit scientific or educational organization qualified under a State nonprofit organization statute.

"Practical application," as used in this subpart, means to manufacture, in the case of a composition or product; to practice, in the case of a process or method; or to operate, in the case of a machine or system; and, in each case, under such conditions as to establish that the invention is being utilized and that its benefits are, to the extent permitted by law or Government regulations, available to the public on reasonable terms.

"Small business firm," as used in this subpart, means a small business concern as defined at 15 U.S.C. 632 and implementing regulations of the Administrator of the Small Business Administration. (For the purpose of this definition, the size standard contained in 13 CFR 121.3-8 for small business contractors and in 13 CFR 121.3-12 for small business subcontractors will be used. See FAR Part 19.)

"Subject invention," as used in this subpart, means any invention of the contractor conceived or first actually reduced to practice in the performance of work under a Government contract; provided, that in the case of a variety of plant, the date of determination defined in section 41(d) of the Plant Variety Protection Act, 7 U.S.C. 2401(d), must also occur during the period of contract performance.

27.302 **Policy.**

(a) Introduction.

(1) The policy of this section is based on Chapter 18 of title 35, U.S.C. (Pub. L. 95-517, Pub. L. 98-620, 37 CFR Part 401), the Presidential Memorandum on Government Patent Policy to the Heads of Executive Departments and Agencies dated February 18, 1983, and Executive Order 12591, which provides that, to the extent permitted by law, the head of each Executive Department and agency shall promote the commercialization, in accord with the Presidential Memorandum, of patentable results of federally funded research by granting to all contractors, regardless of size, the title to patents made in whole or in part with Federal funds, in exchange for royalty-free use by or on behalf of the Government. The objectives of this policy are to use the patent system to promote the utilization of inventions arising from federally supported research or development; to encourage maximum participation of industry in federally supported research and development efforts; to ensure that these inventions are used in a manner to promote free competition and enterprise; to promote the commercialization and public availability of the inventions made in the United States by United States industry and labor; to ensure that the Government obtains sufficient rights in federally supported inventions to meet the needs of the Government and protect the public against nonuse or unreasonable use of inventions; and, to minimize the costs of administering policies in this area.

(b) Contractor right to elect title.

Under the policy set forth in paragraph (a) of this section, each contractor may, after disclosure to the Government as required by the patent rights clause included in the contract, elect to retain title to any invention made in the performance of work under the contract. To the extent an agency's statutory requirements necessitate a different policy, or different procedures and/or contract clauses to effectuate the policy set forth in paragraph (a)

of this section, such policy, procedures, and clauses shall be contained in or expressly referred to in that agency's supplement to this subpart. In addition, a contract may provide otherwise

(1) when the contractor is not located in the United States or does not have a place of business located in the United States or is subject to the control of a foreign-government (see 27.303(c)),

(2) in exceptional circumstances when it is determined by the agency that restriction or elimination of the right to retain title in any subject invention will better promote the policy and objectives of Chapter 18 of title 35, U.S.C. and the Presidential Memorandum,

(3) when it is determined by a Government authority which is authorized by statute or Executive Order to conduct foreign intelligence or counterintelligence activities that the restriction or elimination of the right to retain title to any subject invention is necessary to protect the security of such activities, or

(4) when the contract includes the operation of a Government-owned, contractor-operated facility of the Department of Energy primarily dedicated to the Department's naval nuclear propulsion or weapons related programs and all funding agreement limitations under 35 U.S.C. 202(a)(iv) for agreements with small business firms and nonprofit organizations are limited to inventions occurring under the above two programs. In the case of small business firms and nonprofit organizations, when an agency justifies and exercises the exception at subparagraph (b)(2) of this section on the basis of national security, the contract shall provide the contractor with the right to elect ownership to any invention made under such contract as provided by the clause at 52.227-11, Patent Rights--Retention by

the Contractor (Short Form), if the invention is not classified by the agency within 6 months of the date it is reported to the agency, or within the same time period the Department of Energy (DOE) does not, as authorized by regulation, law or Executive order or implementing regulations thereto, prohibit unauthorized dissemination of the invention. Contracts in support of DOE's naval nuclear propulsion program are exempted from this paragraph. When a contract involves a series of separate task orders, an agency may apply the exceptions at subparagraph (b)(2) or (3) of this section to individual task orders, and it may structure the contract so that modified patent rights clauses will apply to the task order even though the clause at 52.227-11 is applicable to the remainder of the work. In those instances when the Government has the right to acquire title at the time of contracting, the contractor may, nevertheless, request greater rights to an identified invention (see 27.304-1(a)). The right of the contractor to retain title shall, in any event, be subject to the provisions of paragraphs © through (g) of this section.

© Government license. The Government shall have at least a nonexclusive, nontransferable, irrevocable, paid-up license to practice, or have practiced for or on behalf of the United States, any subject invention throughout the world; and may, if provided in the contract (see Alternate I of the applicable patent rights clause), have additional rights to sublicense any foreign government or international organization pursuant to existing treaties or agreements identified in the contract, or to otherwise effectuate such treaties or agreements. In the case of long term contracts, the contract may also provide (see Alternate II) such rights with respect to treaties or agreements to be entered into by the Government after the award of the contract.

(d) Government right to receive title. (1) The Government has the right to receive title to any invention if the contract so provides pursuant to a determination made in accordance with subparagraph (b)(1), (2), (3), or (4) of this section. In addition, to the extent provided in the patent rights clause, the Government has the right to receive title to an invention--

- (I) If the contractor has not disclosed the invention within the time specified in the clause;
- (ii) In any country where the contractor does not elect to retain rights or fails to elect to retain rights to the invention within the time specified in the clause;
- (iii) In any country where the contractor has not filed a patent application within the time specified in the clause;
- (iv) In any country where the contractor decides not to continue prosecution of a patent application, pay maintenance fees, or defend in a reexamination or opposition proceeding on the patent; and/or
- (v) In any country where the contractor no longer desires to retain title.

(2) For the purposes of this paragraph, election or filing in a European patent Office Region or under the Patent Cooperation Treaty constitutes election or filing in any country covered therein to meet the times specified in the clause, provided that the Government has the right to receive title in those countries not subsequently

designated by the contractor.

(e) Utilization reports. The Government shall have the right to require periodic reporting on the utilization or efforts at obtaining utilization that are being made by the contractor or its licensees or assignees. Such reporting by small business firms and nonprofit organizations may be required in accordance with instructions as may be issued by the Department of Commerce. Agencies should protect the confidentiality of utilization reports which are marked with restrictions to the extent permitted by 35 U.S.C. 205 or other applicable laws and 37 CFR Part 401. Agencies shall not disclose such utilization reports to persons outside the Government without permission of the contractor. Contractors will continue to provide confidential markings to help prevent inadvertent release outside the agency.

(f) March-in rights.

(1) With respect to any subject invention in which a contractor has acquired title, contracts provide that the agency shall have the right (unless provided otherwise in accordance with 27.304-1(f)) to require the contractor, an assignee, or exclusive licensee of a subject invention to grant a nonexclusive, partially exclusive, or exclusive license in any field of use to a responsible applicant or applicants, upon terms that are reasonable under the circumstances, and if the contractor, assignee, or exclusive licensee refuses such request, to grant such a license itself, if the agency determines that such action is necessary--

(I) Because the contractor or assignee has not taken, or is not expected to take within a reasonable time, effective steps to achieve practical application of the subject invention in such field of use;

(ii) To alleviate health or safety needs which are not reasonably satisfied by the contractor, assignee, or their licensees;

(iii) To meet requirements for public use specified by Federal regulations and such requirements are not reasonably satisfied by the contractor, assignee, or licensees; or

(iv) Because the agreement required by paragraph (g) below has neither been obtained nor waived, or because a licensee of the exclusive right to use or sell any subject invention in the United States is in breach of its agreement obtained pursuant to paragraph (g) below.

(2) This right of the agency shall be exercised only after the contractor has been provided a reasonable time to present facts and show cause why the proposed agency action should not be taken, and afforded an opportunity to take appropriate action if the contractor wishes to dispute or appeal the proposed action, in accordance with 27.304-1(g).

(g) Preference for United States industry. Unless provided otherwise in accordance with 27.304-1(f), contracts provide that no contractor which receives title to any subject invention and no assignee of any such contractor shall grant to any person the exclusive right to use or sell any subject invention in the United States unless such person agrees that any products embodying the subject invention or produced through the use of the subject invention will be manufactured substantially in the United States. However, in individual cases, the requirement for such an agreement may be waived by the agency upon a showing by the contractor or assignee that reasonable but unsuccessful efforts have been made to grant licenses on similar terms to potential licensees that would be likely to manufacture substantially in the United States or that under the circumstances domestic manufacture is not commercially feasible.

(h) Small business Reference.

(1) Nonprofit organization contractors are expected to use efforts that are reasonable under the circumstances to attract small business licensees. They are also expected to give small business firms that meet the standard outlined in the clause at 52.227-11, Patent Rights--Retention by the Contractor (Short Form), a preference over other applicants for licenses. What constitutes reasonable efforts to attract small business licensees will vary with the circumstances and the nature, duration, and expense of efforts needed to bring the invention to the market. Subparagraph (k)(4) of the clause is not intended, for example, to prevent nonprofit organizations from providing larger firms with a right of first refusal or other options in inventions that relate to research being supported under long-term or other arrangements with larger companies. Under such circumstances, it would not be reasonable to seek and to give a Reference to small business licensees.

(2) Small business firms that believe a nonprofit organization is not meeting its obligations under the

clause may report their concerns to the Secretary of Commerce. To the extent deemed appropriate, the Secretary of Commerce will undertake informal investigation of the concern, and, if appropriate, enter into discussions or negotiations with the nonprofit organization to the end of improving its efforts in meeting its obligations under the clause. However, in no event will the Secretary of Commerce intervene in ongoing negotiations or contractor decisions concerning the licensing of a specific subject invention. All the above investigations, discussions, and negotiations of the Secretary of Commerce will be in coordination with other interested agencies, including the Small Business Administration; and in the case of a contract for the operation of a Government-owned, contractor-operated research or production facility, the Secretary of Commerce will coordinate with the agency responsible for the facility prior to any discussions or negotiations with the contractor.

(I) Minimum rights to contractor.

(1) When the Government acquires title to a subject invention, the contractor is normally granted a revocable, nonexclusive, royalty-free license to that invention throughout the world. The contractor's license extends to its domestic subsidiaries and affiliates, if any, within the corporate structure of which the contractor is a part and includes the right to grant sublicenses of the same scope to the extent the contractor was legally obligated to do so at the time the contract was awarded. The license is transferable only with the approval of the contracting officer except when transferred to the successor of that part of the contractor's business to which the invention pertains.

(2) The contractor's domestic license may be revoked or modified to the extent necessary to achieve expeditious practical application of the subject invention pursuant to an application for an exclusive license submitted in accordance with the applicable provisions in the Federal Property Management Regulations and agency licensing regulations. This license will not be revoked in that field of use or the geographical areas in which the contractor has achieved practical application and continues to make the benefits of the invention reasonably accessible to the public. The license in any foreign country may be revoked or modified to the extent the contractor, its licensees, or its domestic subsidiaries or affiliates have failed to achieve practical application in that country. See the procedures at 27.304-1(e).

(j) Confidentiality of inventions. The publication of information disclosing an invention by any party before the filing of a patent application may create a bar to a valid patent. Accordingly, 35 U.S.C. 205 and 37 CFR Part 40 provide that Federal agencies are authorized to withhold from disclosure to the public information disclosing any invention in which the Federal Government owns or may own a right, title, or interest (including a nonexclusive license) for a reasonable time in order for a patent application to be filed. Furthermore, Federal agencies shall not be required to release copies of any document which is part of an application for patent filed with the United States Patent and Trademark Office or with any foreign patent office. The Presidential Memorandum on Government Patent Policy specifies that agencies should protect the confidentiality of invention disclosures and patent applications required in performance or in consequence of awards to the extent permitted by 35 U.S.C. 205 or other applicable laws.

SUBPART 27.4--RIGHTS IN DATA AND COPYRIGHTS

27.400 Scope of subpart.

(a) The policy statement in 27.402 applies to all executive agencies. The remainder of the subpart sets forth civilian agency and National Aeronautics and Space Administration (NASA) policies, procedures, and instructions with respect to (1) rights in data and copyrights and (2) acquisition of data. However, these policies, procedures, and instructions are not required to be applicable to NASA solicitations until December 31, 1987 (or until such other date as the NASA FAR Supplement is revised to accommodate the policies, procedures, and instructions contained in this subpart). Due to the special mission needs of the Department of Defense (DOD) and as required by 10 U.S.C. 2320, the remainder of the DOD policies, procedures, and instructions with respect to rights in data and copyrights and acquisition of data are contained in the DOD FAR Supplement (DFARS).

(b) Civilian agencies other than NASA shall implement Section 203 of Public Law 98-577 pertaining to validation of proprietary data restrictions.

27.401 Definitions.

"Computer software," as used in this subpart, means computer programs, computer data bases, and documentation thereof.

"Data," as used in this subpart, means recorded information, regardless of form or the media on which it may be recorded. The term includes technical data and computer software. The term does not include information incidental to contract administration, such as financial, administrative, cost or pricing or management information.

"Form, fit, and function data," as used in this subpart, means data relating to items, components, processes that are sufficient to enable physical and functional interchangeability, as well as data identifying source, size, configuration, mating and attachment characteristics, functional characteristics, and performance requirements; except that for computer software it means data identifying source, functional characteristics, and performance requirements, but specifically excludes the source code, algorithm, process, formulae, and flow charts of the software.

"Limited rights," as used in this subpart, means the rights of the Government in limited rights data, as set forth in a Limited Rights Notice if included in a data rights clause of the contract.

"Limited rights data," as used in this subpart, means data, other than computer software, that embody trade secrets or are commercial or financial and confidential or privileged, to the extent that such data pertain to items, components, or processes developed at private expense, including minor modifications thereof. (Agencies may, however, adopt the following alternate definition:

"Limited rights data," as used in this subpart, means data developed at private expense that embody trade secrets or are commercial or financial and confidential or privileged (see 27.404(c)).

"Restricted computer software," as used in this subpart, means computer software developed at private expense and that is a trade secret; is commercial or financial and confidential or privileged; or is published copyrighted

computer software; including minor modifications of such computer software.

"Restricted rights," as used in this subpart, means the rights of the Government in restricted computer software as set forth in a Restricted Rights Notice, if included in a data rights clause of the contract, or as otherwise may be included or incorporated in the contract.

"Technical data," as used in this subpart, means data other than computer software, which are of a scientific or technical nature.

"Unlimited rights," as used in this subpart, means the rights of the Government to use, disclose, reproduce, prepare derivative works, distribute copies to the public, and perform publicly and display publicly, in any manner and for any purpose, and to have or permit others to do so.

27.402 Policy.

(a) It is necessary for the departments and agencies, in order to carry out their missions and programs, to acquire or obtain access to many kinds of data produced during or used in the performance of their contracts. Agencies require such data to: obtain competition among suppliers; fulfill certain responsibilities for disseminating and publishing the results of their activities; ensure appropriate utilization of the results of research, development, and demonstration activities including the dissemination of technical information to foster subsequent technological developments; and meet other programmatic and statutory requirements. Further, for defense purposes, such data are also required by agencies to meet specialized acquisition needs and ensure logistics support.

(b) At the same time, the Government recognizes that its contractors may have a legitimate proprietary interest (e.g., a property right or other valid economic interest) in data resulting from private investment. Protection of such data from unauthorized use and disclosure is necessary in order to prevent the compromise of such property right or economic interest, avoid jeopardizing the contractor's commercial position, and preclude impairment of the Government's ability to obtain access to or use of such data. The protection of such data by the Government is also necessary to encourage qualified contractors to participate in Government programs and apply innovative

concepts to such programs. In light of the above considerations, in applying these policies, agencies shall strike a balance between the Government's need and the contractor's legitimate proprietary interest.

27.403 Data Rights--General.

All contracts that require data to be produced, furnished, acquired or specifically used in meeting contract performance requirements, must contain terms that delineate the respective rights and obligations of the Government

and the contractor regarding the use, duplication, and disclosure of such data, except certain contracts resulting from sealed bidding or similar situations which require only existing data (other than limited rights data and restricted

computer software) to be delivered and reproduction rights are not needed for such data. As a general rule the data rights clause at 52.227-14, Rights in Data--General, including Alternates I, II, III, IV, and V, where determined to be appropriate as discussed in 27.404, is to be used for that purpose. However, in certain contracts either the particular subject matter of the contract or the intended use of the data may require the use of other prescribed clauses, or may not require the use of any prescribed clause, as discussed in 27.405 and 27.408. Also, in selecting a data rights clause, it is important to note that any such clause does not specify the data (in terms of type, quantity or quality) that is to be delivered, but only the respective rights of the Government and the contractor to use, disclose, or reproduce such data. Accordingly, the contract should also include appropriate terms to specify the data to be delivered.

27.404 Basic Rights in Data Clause.

(a) Unlimited Rights Data. Under the clause at 52.227-14, Rights in Data--General, the Government acquires unlimited rights in the following data (except as provided in paragraph (f) of this section for copyrighted data): (1) data first produced in the performance of a contract (except to the extent such data constitute minor modifications to data that are limited rights data or restricted computer software); (2) form, fit, and function data delivered under contract; (3) data (except as may be included with restricted computer software) that constitute manuals or instructional and training material for installation, operation, or routine maintenance and repair of items, components, or processes delivered or furnished for use under a contract; and (4) all other data delivered under the contract other than limited rights data or restricted computer software (see paragraph (b) of this section). If any of the foregoing data are published copyrighted data with the notice of 17 U.S.C. 401 or 402, the Government acquires them under a copyright license, as set forth in paragraph (f) of this section, rather than with unlimited rights.

(b) Limited Rights Data and Restricted Computer Software. The clause at 52.227-14, Rights in Data--General, enables the contractor to protect qualifying limited rights data and restricted computer software by withholding such data from delivery to the Government and delivering form, fit, and function data in lieu thereof. However, when an agency has a need to obtain delivery of limited rights data or restricted computer software, the clause may be used with its alternates II or III, as set forth in paragraphs (d) and (e) of this section. These alternatives enable a contracting officer to selectively request the delivery of such data with limited rights or restricted rights, either by specifying such delivery in the contract or by specific request.

(c) Alternate Definition of Limited Rights Data. In the clause at 52.227-14, Rights in Data--General, in order for data to qualify as limited rights data, in addition to being data that either embody a trade secret or are data that are commercial or financial and confidential or privileged, such data must also pertain to items, components, or processes developed at private expense, including minor modifications thereof. However, for contracts that do not require the development, use or delivery of items, components or processes that are intended to be acquired by or for the Government, an agency may adopt for general use or for use in specific circumstances the alternate definition of limited rights data set forth in alternate I. The alternate definition does not require that such data pertain to items, components, or processes developed at private expense; but rather that such data were developed at private expense and embody a trade secret or are commercial or financial and confidential or privileged.

(d)Protection of Limited Rights Data Specified for Delivery. (1) Contracting officers are authorized to modify the clause at 52.227-14, Rights in Data--General, by use of alternate II, which alternate adds subparagraph (g)(2) to the clause to enable the Government to require delivery of limited rights data rather than allowing the contractor to withhold such data. To obtain such delivery, the contract may identify and specify data to be delivered, or the contracting officer may require, by written request during contract performance, the delivery of data that has been withheld or identified as withholdable under subparagraph (g)(1) of the clause at 52.227-14, Rights in Data--General. In addition, if agreed to during negotiations, the contract may specifically identify data that are not to be delivered under alternate II or which, if delivered, will be delivered with limited rights. The limited rights obtained by the Government are set forth in the Limited Rights Notice contained in subparagraph (g)(2) (Alternate II). Such limited rights data will not, without permission of the contractor, be used by the Government for purposes of manufacture, and will not be disclosed outside the Government except for certain specific purposes as may be set forth in the Notice, and then only if the Government makes the disclosure subject to prohibition against further use and disclosure by the recipient. The following are examples of specific purposes which may be adopted by an agency in its supplement and added to the Limited Rights Notice of subparagraph (g)(2) of the clause (Alternate II):

- (I) Use (except for manufacture) by support service contractors.
- (ii) Evaluation by nongovernment evaluators.
- (iii) Use (except for manufacture) by other contractors participating in the Government's program of which the specific contract is a part, for information and use in connection with the work performed under each contract.
- (iv) Emergency repair or overhaul work.
- (v) Release to a foreign government, or instrumentality thereof, as the interests of the United States Government may require, for information or evaluation, or for emergency repair or overhaul work by such government.

(2) As an aid in determining whether the clause at 52.227-14 should be used with its alternate II, the provision at 52.227-15, Representation of Limited Rights Data and Restricted Computer Software, may be included in any solicitation containing the clause at 52.227-14, Rights in Data--General. This representation requests that an offeror state in response to a solicitation, to the extent feasible, whether limited rights data are likely to be used in meeting the data delivery requirements set forth in the solicitation. In addition, the need for alternate II should be considered during negotiations or discussion with an offeror, particularly where negotiations are based on an unsolicited proposal. However, use of the clause at 52.227-14, Rights in Data--General, without alternate II does not preclude this Alternate from being used subsequently by modification during contract performance, should the need arise for delivery of limited rights data that have been withheld or identified as withholdable.

(3) Whenever data that would qualify as limited rights data, if it were to be delivered in human readable form, is formatted as a computer data base for the purpose of delivery under a contract containing the clause at 52.227-14, Rights in Data--General, such data is to be treated as limited rights data, rather than restricted computer software, for the purposes of paragraph (g) of that clause.

(e)Protection of Restricted Computer Software Specified for Delivery. (1) Contracting officers are authorized to modify the clause at 52.227-14, Rights in Data--General, by use of alternate III, which alternate adds subparagraph (g)(3) to the clause to enable the Government to require delivery of restricted computer software rather than allowing the contractor to withhold such restricted computer software. To obtain such delivery, the contract may identify and specify the computer software to be delivered, or the contracting officer may require by written request during contract performance, the delivery of computer software that has been withheld or identified as withholdable under subparagraph (g)(1) of the clause. In addition, if agreed to during negotiations, the contract may specifically identify computer software that are not to be delivered under Alternate III or which, if delivered, will be with restricted rights. In considering whether to use the clause at 52.227-14 with its alternate III, it should be particularly noted that unlike other data, computer software is also an end item in itself, such that if withheld and form, fit, and function data provided in lieu thereof, an operational program will not be acquired. Thus, if delivery of restricted computer software is anticipated to be needed to meet contract performance requirements, the contracting officer should assure that the clause is used with its alternate III. Unless otherwise agreed to (see paragraph (e)(2) of this section) the restricted rights obtained by the Government are set forth in the

Restricted Rights Notice contained in subparagraph (g)(3) (Alternate III). Such restricted computer software will not be used or reproduced by the Government, or disclosed outside the Government, except that the computer software may be--

(I) Used or copied for use in or with the computer or computers for which it was acquired, including use at any Government installation to which such computer or computers may be transferred;

(ii) Used or copied for use in or with a backup computer if any computer for which it was acquired becomes inoperative;

(iii) Reproduced for safekeeping (archives) or backup purposes;

(iv) Modified, adapted, or combined with other computer software, provided that the modified, combined, or adapted portions of any derivative software incorporating restricted computer software are made subject to the same restricted rights;

(v) Disclosed to and reproduced for use by support service contractors, subject to the same restriction under which the Government acquired the software;

(vi) Used or copied for use in or transferred to a replacement computer; and

(vii) Used in accordance with subdivisions (e)(1)(I) through (v) of this section, without disclosure prohibitions, if the computer software is published copyrighted computer software.

(2) The restricted rights set forth in subparagraph (e)(1) of this section are the minimum rights the Government normally obtains with restricted computer software and will automatically apply when such software is acquired under the Restricted Rights Notice of subparagraph (g)(3) (Alternate III) of the clause. However, either greater or lesser rights, consistent with the purposes and needs for which the software is to be acquired, may be specified by the contracting officer in a particular contract or prescribed in agency regulations. For example, consideration should be given to any networking needs or any requirements for use of the computer software from remote terminals. Also, in addressing such needs, the scope of the restricted rights may be different for the documentation accompanying the computer software than for the programs and data bases. Any additions to, or limitations on, the restricted rights set forth in the Restricted Rights Notice of subparagraph (g)(3) of the clause are to be expressly stated in the contract or in a collateral agreement incorporated in and made part of the contract, and the notice modified accordingly.

(3) As an aid in determining whether the clause should be used with its Alternate III, the provision at 52.227-15, Representation of Limited Rights Data and Restricted Computer Software, may be included in any solicitation containing the clause at 52.227-14, Rights in Data--General. This representation requests that an offeror state, in response to a solicitation, to the extent feasible, whether restricted computer software is likely to be used in meeting the data delivery requirements set forth in the solicitation. In addition, the need for alternate III should be considered during negotiations or discussions with an offeror, particularly where negotiations are based on an unsolicited proposal. However, use of the clause at 52.227-14, Rights in Data--General, without alternate III does not preclude this Alternate from being used subsequently by modification during contract performance, should the need arise for the delivery of restricted computer software that has been withheld or identified as withholdable.

(f) Copyrighted Data. (1) Data First Produced in the Performance of a Contract.

(I) In order to enhance the transfer or dissemination of information produced at Government expense, contractors are normally authorized, without prior approval of the contracting officer, to establish claim to copyright subsisting in technical or scientific articles based on or containing data first produced in the performance of work under a contract containing the clause at 52.227-14, Rights in Data--General and published in academic, technical or professional journals, symposia proceedings and similar works. Otherwise, the permission of the contracting officer is required in accordance with subdivision (f)(1)(ii) of this section or any applicable agency regulations, to establish claim to copyright subsisting in data first produced in the performance of a contract unless the clause is used with its Alternate IV in accordance with subdivision (f)(1)(iii) of this section. Agencies may, however, restrict copyright under certain circumstances in accordance with subparagraph (g)(3) of this section.

(ii) Usually, permission for a contractor to establish claim to copyright subsisting in data first produced under the contract will be granted when copyright protection will enhance the appropriate transfer or dissemination of such data and the commercialization of products or processes to which it pertains. The request for permission must be made in writing, and may be made either prior to contract award or subsequently during contract performance. It should identify the data involved or furnish copies of the data for which permission is requested,

as well as a statement as to the intended publication or dissemination media or other purpose for which copyright is desired. The request normally will be granted unless--(A) the data consist of a report that represents the official views of the agency or that the agency is required by statute to prepare; (B) the data are intended primarily for internal use by the Government; (C) the data are of the type that the agency itself distributes to the public under an agency program; (D) the Government determines that limitation on distribution of the data is in the national interest; (E) the Government determines that the data should be disseminated without restriction.

(iii) An alternate IV is provided for use with the clause at 52.227-14, Rights in Data--General, which alternate provides a substitute subparagraph (c)(1) in the clause granting blanket permission for contractors to establish claim to copyright subsisting in all data first produced in the performance of the contract without further request being made by the contractor. Alternate IV shall be used in all contracts for basic or applied research (other than those for management or operation of Government facilities and in contracts and subcontracts in support of programs being conducted at such facilities or where international agreements require otherwise) to be performed solely by colleges and universities. Alternate IV will not be used in contracts with colleges and universities if a purpose of the contract is for development of computer software for distribution to the public (including use in solicitations) by or on behalf of the Government. In addition, Alternate IV may be used in other contracts if an agency determines to grant blanket permission for contractors to establish claim to copyright subsisting in all data first produced in the performance of contract without further request being made by the contractor. In any contract where alternate IV is used, the contract may exclude any data, items or categories of data from the blanket permission granted, either by express provisions in the contract or by the addition of a subparagraph (d)(3) to the clause, consistent with subparagraph (g)(3) of this section.

(iv) Whenever a contractor establishes claim to copyright subsisting in data (other than computer software) first produced in the performance of a contract, the Government is granted a paid-up nonexclusive, irrevocable, worldwide license to reproduce, prepare derivative works, distribute to the public, perform publicly and display publicly by or on behalf of the Government, for all such data, as set forth in subparagraph (c)(1) of the clause at 52.227-14, Rights in Data--General. For computer software the scope of the Government's license does not include the right to distribute to the public. Agencies may also, either on a case-by-case basis, or on a class basis if provided in implementing regulations, obtain a license of different scope than set forth in subparagraph (c)(1) of the clause if the agency determines that such different license will substantially enhance the transfer or dissemination of any data first produced under the contract, and will not interfere with the Government's use of the data as contemplated by the contract or if required for international agreements. If an agency obtains such a different license, the scope of that license shall be clearly stated in a conspicuous place on the medium on which the data is recorded. That is, if a report, the scope of the different license shall be put on the cover, or first page, of the report. If computer software, the scope of the different license shall be placed on the most conspicuous place available.

(v) Whenever a contractor establishes claim to copyright in data first produced in the performance of a contract, irrespective of which Alternate is used with the clause or the scope of the Government's license, the contractor is required to affix the applicable copyright notices of 17 U.S.C. 401 or 402, and acknowledgment of Government sponsorship, (including the contract number) to the data whenever such data are delivered to the Government, published, or deposited for registration as a published work in the U.S. Copyright Office. Failure to do so could result in such data being treated as unlimited rights data (see paragraph (I) of this section).

(2) Data Not First Produced in the Performance of a Contract. (I)

Contractors are not to incorporate in data delivered under a contract any data that is not first produced under the contract and that is marked with the copyright notice of 17 U.S.C. 401 or 402, without either (A) acquiring for or granting to the Government certain copyright license rights for the data, or (B) obtaining permission from the contracting officer to do otherwise. The copyright license the Government acquires for such data will normally be of the same scope as discussed in subdivision (f)(1)(iv) of this section, and is set forth in subparagraph (c)(2) of the clause at 52.227-14, Rights in Data--General. However, agencies may, on a case-by-case basis, or on a class basis if provided in implementing agency regulations, obtain a license of different scope if the agency determines that such different license will not be inconsistent with the purpose of acquiring the data. If a license of a different scope is acquired, it must be so stated in the contract and clearly set forth in a conspicuous place on the data when delivered to the Government. In addition, if computer software not first produced under a contract is delivered with the copyright notice of 17 U.S.C. 401, the Government's license will be as set forth in subparagraph (g)(3)

(Alternate III) if included in the clause at 52.227-14, Rights in Data--General, or as otherwise may be provided in a collateral agreement incorporated in or made part of the contract.

(ii) Contractors delivering data with both an authorized limited rights or restricted rights notice and the copyright notice of 17 U.S.C. 401 or 402 should modify the copyright notice to include the following (or similar) statement: "Unpublished--all rights reserved under the copyright laws of the United States." If this statement is omitted, the contractor may be afforded an opportunity to correct it in accordance with paragraph (h) of this section. Otherwise, data delivered with a copyright notice of 17 U.S.C. 401 or 402 may be presumed to be published copyrighted data subject to the applicable license rights set forth in subdivision (f)(2)(I) of this section, without disclosure limitations or restrictions.

(iii) If contractor action causes limited rights or restricted rights data to be published with the copyright notice of 17 U.S.C. 401 or 402 after its delivery to the Government, the Government is relieved of disclosure and use limitations and restrictions regarding such data, and the contractor should advise the Government, request that a copyright notice be placed on the copies of the data delivered to the Government and acknowledge that the applicable copyright license set forth in subdivision (f)(2)(I) of this section applies.

(g) Release, Publication, and Use of Data. (1) In paragraph (d) of the clause at 52.227-14, Rights in Data--General, subparagraph (d)(1) recognizes the fact that normally the contractor has the right to use, release to others, reproduce, distribute, or publish data first produced in the performance of a contract, except to the extent such data may be subject to Federal export control or to national security laws or regulations. In addition, to the extent the contractor receives or is given access to data that is necessary for the performance of the contract from or by the Government or others acting on behalf of the Government, and the data contains restrictive markings, subparagraph (d)(2) provides an agreement with the contractor to treat the data in accordance with the markings, unless otherwise specifically authorized by the contracting officer.

(2) In contracts for basic or applied research with universities or colleges, no restrictions may be placed upon the conduct of or reporting on the results of unclassified basic or applied research, except as provided in applicable U.S. Statutes. For the purposes of this subparagraph, agency restrictions on the release or disclosure of computer software that has been, readily can be, or is intended to be, developed to the point of practical application

(including for agency distribution under established programs) are not considered restrictions on the reporting of the results of basic or applied research. Agencies may also restrict claim to copyright in any computer software for purposes of established agency distribution programs, or where required to accomplish the purpose for which the software is produced.

(3) Except for the results of basic or applied research under contracts with universities or colleges, agencies may, to the extent provided in their FAR supplements, place limitations or restrictions on the contractor's right to

use, release to others, reproduce, distribute, or publish any data first produced in the performance of the contract, including a requirement to assign copyright to the Government or another party, either by adding a subparagraph (d)(3) to the Rights in Data--General clause at 52.227-14, or by express limitations or restrictions in the contract. In the latter case, the limitations or restrictions should be referenced in the Rights in Data--General clause. However, such regulatory restrictions or limitations are not to be imposed unless they are determined by the agency to be necessary in the furtherance of agency mission objectives, needed to support specific agency programs, or necessary to meet statutory requirements. Notwithstanding the provisions of this subparagraph, agencies may obtain, if provided in their FAR supplement, for information purposes only, advance copies of articles intended for publication in academic, scientific or technical journals or symposia proceedings or similar works.

(h) Unauthorized Marking of Data. Except for validation of restrictive markings on technical data under contracts for major systems, or for support of major systems, by agencies subject to the provisions of Title III of the Federal Property and Administrative Services Act of 1949, the Government has, in accordance with paragraph (e) of the clause at 52.227-14, Rights in Data--General, the right to either return to the contractor data containing markings not authorized by that clause, or to cancel or ignore such markings. However, markings will not be canceled or ignored without making written inquiry of the contractor and affording the contractor at least 30 days to provide a written justification to substantiate the propriety of the markings. Failure of the contractor to respond, or failure to provide a written justification to substantiate the propriety of the markings within the time afforded,

may result in the Government's action to cancel or ignore the markings. If the contractor provides a written justification to substantiate the propriety of the markings, it will be considered by the contracting officer and the contractor notified of any determination based thereon. If the contracting officer determines that the markings are authorized, the contractor will be so notified in writing. Further, if not authorized, the contractor will be furnished a written determination which shall become the final agency decision regarding the appropriateness of the markings and the markings will be canceled or ignored and the data will no longer be made subject to disclosure prohibitions, unless the contractor files suit within 90 days in a court of competent jurisdiction. In any event, the markings will not be canceled or ignored unless the contractor fails to respond within the period provided, or, if the contractor does respond, until final resolution of the matter, either by the contracting officer's determination becoming the final agency decision or by final disposition of the matter by court decision if suit is filed. The foregoing procedures may be modified in accordance with agency regulations implementing the Freedom of Information Act (5 U.S.C. 552) if necessary to respond to a request thereunder. In addition, the contractor is not precluded from bringing a claim under the Contract Disputes Act, including pursuant to the Disputes clause of this contract if applicable, that may arise as the result of the Government's action to remove or ignore any markings on data, unless such action occurs as the result of a final disposition of the matter by a court of competent jurisdiction.

(I) Omitted or Incorrect Notices. (1) Data delivered under a contract containing the clause at 52.227-14, Rights in Data--General, without a limited rights notice or restricted rights notice, and without a copyright notice, will be presumed to have been delivered with unlimited rights, and the Government assumes no liability for the disclosure, use, or reproduction of such data. However, to the extent the data has not been disclosed without restriction outside the Government, the contractor may within 6 months (or a longer period approved by the contracting officer for good cause shown) request permission of the contracting officer to have omitted limited rights or restricted rights notices, as applicable, placed on qualifying data at the contractor's expense, and the contracting officer may agree to so permit if the contractor (i) identifies the data for which a notice is to be added or corrected, (ii) demonstrates that the omission of the proposed notice was inadvertent, (iii) establishes that use of the proposed notice is authorized, and (iv) acknowledges that the Government has no liability with respect to any disclosure or use of any such data made prior to the addition of the notice or resulting from the omission of the notice.

(2) The contracting officer may also (I) permit correction, at the contractor's expense, of incorrect notices if the contractor identifies the data on which correction of the notice is to be made, and demonstrates that the correct notice is authorized, or (ii) correct any incorrect notices.

(j) Inspection of Data at the Contractor's Facility. Contracting officers may obtain the right to inspect data at the contractor's facility by use of Alternate V, which adds paragraph (j) to provide that right in the clause at 52.227-14, Rights in Data--General. Agencies may also adopt Alternate V for general use. The data subject to inspection may be data withheld or withholdable under subparagraph (g)(1) of the clause. Such inspection may be made by the contracting officer or designee (including nongovernmental personnel under the same conditions as the contracting officer) for the purpose of verifying a contractor's assertion regarding the limited rights or restricted rights status of the data, or for evaluating work performance under the contract. This right may be exercised up to 3 years after acceptance of all items to be delivered under the contract. The contract may specify data items that are not subject to inspection under paragraph (j) (Alternate V). If the contractor demonstrates to the contracting officer that there would be a possible conflict of interest if inspection were made by a particular representative, the contracting officer shall designate an alternate representative.

27.405 Other data rights provisions.

(a) Production of special works. (1) The clause at 52.227-17, Rights in Data--Special Works, is to be used in contracts (or may be made applicable to portions thereof) that are primarily for the production or compilation of data (other than limited rights data or restricted computer software) for the Government's own use, or when there is a specific need to limit distribution and use of the data and/or to obtain indemnity for liabilities that may arise out of the content, performance, or disclosure of the data. Examples are contracts for--

(I) The production of audiovisual works, including motion pictures or television recordings with or without accompanying sound, or for the preparation of motion picture scripts, musical compositions, sound tracks, translation, adaptation, and the like;

- (ii) Histories of the respective agencies, departments, services, or units thereof;
- (iii) Surveys of Government establishments;
- (iv) Works pertaining to the instruction or guidance of Government officers and employees in the discharge of their official duties;
- (v) The compilation of reports, books, studies, surveys, or similar documents that do not involve research, development, or experimental work;
- (vi) The collection of data containing personally identifiable information such that the disclosure thereof would violate the right of privacy or publicity of the individual to whom the information relates;
- (vii) Investigatory reports; or
- (viii) The development, accumulation, or compilation of data (other than that resulting from research, development, or experimental work performed by the contractor), the early release of which could prejudice follow-on acquisition activities or agency regulatory or enforcement activities.

(2) The contract may specify the purposes and conditions (including time limitations) under which the data may be used, released, or reproduced other than for contract performance. Contracts for the production of audiovisual works, sound recordings, etc., may include limitations in connection with talent releases, music licenses, and the like that are consistent with the purposes for which the works are acquired.

(3) Subdivision (c)(1)(ii) of the clause at 52.227-17, Rights in Data--Special Works, which enables the Government to obtain assignment of copyright in any data first produced in the performance of the contract, may be deleted if the contracting officer determines that such assignment is not needed to further the objectives of the contract.

(4) Paragraph (e) of the clause, which requires the contractor to indemnify the Government against any liability incurred as the result of any violation of trade secrets, copyrights, right of privacy or publicity, or any libelous or other unlawful matter arising out of or contained in any production or compilation of data that are subject to the clause, may be deleted or limited in scope where the contracting officer determines that, because of the nature of the particular data involved, such liability will not arise.

(5) When the audiovisual or other special works are produced to accomplish a public purpose other than acquisition for the Government's own use (such as for production and distribution to the public of such works by other than a Federal agency) agencies are authorized to modify the Rights in Data--Special Works clause for use in such contracts, with rights in data provisions which meet agency mission needs yet protect free speech and freedom of expression, as well as the artistic license of the creator of the work.

(b) Rights relating to existing data other than limited rights data. (1) Acquisition of existing audiovisual and similar works. The clause at 52.227-18, Rights in Data--Existing Works, is for use in contracts exclusively for the acquisition (without modification) of existing motion pictures, television recordings, and other audiovisual works; sound recordings; musical, dramatic, and literary works; pantomimes and choreographic works; pictorial, graphic, and sculptural works; and works of a similar nature. The contract may set forth limitations consistent with the purposes for which the works covered by the contract are being acquired. Examples of these limitations are (i) means of exhibition or transmission, (ii) time, (iii) type of audience, and (iv) geographical location. If the contract requires that works of the type indicated in subparagraph (b)(1) of this section are to be modified through editing, translation, or addition of subject matter, etc. (rather than purchased in existing form) the clause at 52.227-17, Rights in Data--Special Works, is to be used. (See paragraph (a) of this section.)

(2) Acquisition of existing computer software. (i) When contracting other than from GSA's Multiple Award Schedule contracts for the acquisition of existing computer software (i.e., privately developed software normally vended commercially under a license or lease agreement restricting its use, disclosure, or reproduction), no specific contract clause prescribed in this subpart need be used, but the contract (or purchase order) must specifically address the Government's rights to use, disclose and reproduce the software, which rights must be sufficient for the Government to fulfill the need for which the software is being acquired. Such rights may be negotiated and set forth in the contract using the guidance concerning restricted rights as set forth in 27.404(e), or the clause at 52.227-19, Commercial Computer Software--Restricted Rights, may be used. Restricted computer software acquired under GSA Multiple Award Schedule contracts and orders are excluded from this requirement. The guidance concerning rights set forth in 27.404(e), as well as those in the clause at 52.227-19, are the minimum rights the Government usually should accept. Thus if greater rights than these minimum rights are needed, or lesser rights are to be acquired, they must be negotiated and set forth in the contract (or purchase order). This includes

any additions to, or limitations on, the rights set forth in paragraph (b) of the clause at 52.227-19 when used. Examples of greater rights may be those necessary for networking purposes or use of the software from remote terminals communicating with a host computer where the software is located. If the computer software is to be acquired with unlimited rights, the contract must also so state. In addition, the contract must adequately describe the computer programs and/or data bases, the form (tapes, punch cards, disk pack, and the like), and all the necessary documentation pertaining thereto. If the acquisition is by lease or license, the disposition of the computer software (by returning to the vendor or destroying) at the end of the term of the lease or license must be addressed.

(ii) If the contract incorporates, makes reference to, or uses a vendor's standard commercial lease, license, or purchase agreement, such agreement shall be reviewed to assure that it is consistent with subdivision (b)(2)(I) of this section. Caution should be exercised in accepting a vendor's terms and conditions, since they may be directed to commercial sales and may not be appropriate for Government contracts. Any inconsistencies in a vendor's standard commercial agreement shall be addressed in the contract and the contract terms shall take precedence over the vendor's standard commercial agreement. If the clause at 52.227-19, Commercial Computer Software--Restricted Rights, is used, inconsistencies in the vendor's standard commercial agreement regarding the Government's right to use, duplicate or disclose the computer software are reconciled by that clause.

(iii) If a prime contractor under a contract containing the clause at 52.227-14, Rights in Data--General, with subparagraph (g)(3) (Alternate III) in the clause, acquires restricted computer software from a subcontractor (at any tier) as a separate acquisition for delivery to or for use on behalf of the Government, the contracting officer may approve any additions to, or limitations on the restricted rights in the Restricted Rights Notice of subparagraph (g)(3) in a collateral agreement incorporated in and made part of the contract.

(3) Other existing data and works. Except for existing audiovisual and similar works pursuant to subparagraph (b)(1) of this section, and existing computer software pursuant to subparagraph (b)(2) of this section, no clause contained in this subpart is required to be included in (I) contracts solely for the acquisition of books, periodicals, and other printed items in the exact form in which such items are to be obtained unless reproduction rights are to be acquired; or (ii) other contracts (e.g., contracts resulting from sealed bidding) that require only existing data (other than limited rights data) to be delivered and such data are available without disclosure prohibitions, unless reproduction rights to the data are to be obtained. If the reproduction rights to the data are to be obtained in any contract of the type described in subdivision (b)(3)(I) or (ii) of this section, such rights must be specifically set forth in the contract. No clause contained in this subpart is required to be included in contracts substantially for on-line data base services in the same form as they are normally available to the general public.

(c) Contracts awarded under Small Business Innovative Research (SBIR) Program. The clause at 52.227-20, Rights in Data--SBIR Program, is for use in all Phase I and Phase II contracts awarded under the Small Business

Innovative Research Program (SBIR) established pursuant to Pub. L. 97-219 (the Small Business Innovation Development Act of 1982). The clause is limited to use solely in contracts awarded under the SBIR Program, and is the only data rights clause to be used in such contracts.

27.406 Acquisition of data.

(a) General. (1) It is the Government's practice to determine, to the extent feasible, its data requirements in time for inclusion in solicitations. The data requirements may be subject to revision during contract negotiations. Since the preparation, reformatting, maintenance and updating, cataloging, and storage of data represents an expense to both the Government and the contractor, efforts should be made to keep the contract data requirements to a minimum, consistent with the purposes of the contract.

(2) To the extent feasible, all known data requirements, including the time and place for delivery and any limitations and restrictions to be imposed on the contractor in the handling of the data, shall be specified in the contract. Further, and to the extent feasible, in major system acquisitions, data requirements shall be set out as separate contract line items. In establishing the contract data requirements and in specifying data items to be delivered by a contractor, agencies may, consistent with subparagraph (a)(1) of this section, develop their own contract schedule provisions in agency procedures (including data requirements lists) for listing, specifying, identifying source, assuring delivery, and handling any data required to be delivered, first produced, or specifically

used in the performance of the contract.

(3) Data delivery requirements should normally not require that a contractor provide the Government, as a condition of the procurement, unlimited rights in data that qualify as limited rights data or restricted computer software. Rather, form, fit, and function data may be furnished with unlimited rights in lieu of the qualifying data, or the qualifying data may be furnished with limited rights or restricted rights if needed (see 27.404(d) and (e)). If greater rights are needed such need should be clearly set forth in the solicitation and the contractor fairly compensated for such greater rights.

(b) Additional data requirements. (1) Recognizing that in some contracting situations, such as experimental, developmental, research, or demonstration contracts, it may not be feasible to ascertain all the data requirements at the time of contracting, the clause at 52.227-16, Additional Data Requirements, may be used to enable the subsequent ordering by the contracting officer of additional data first produced or specifically used in the performance of such contracts as the actual requirements become known. The clause shall normally be used in solicitations and contracts involving experimental, developmental, research or demonstration work (other than basic or applied research to be performed under a contract solely by a university or college when the contract amount will be \$500,000 or less) unless all the requirements for data are believed to be known at the time of contracting and specified in the contract. If the contract is for basic or applied research to be performed by a university or college, and the contracting officer believes the contract effort will in the future exceed \$500,000, even though the initial award does not, the contracting officer may include the clause in the initial award.

(2) Data may be ordered under the clause at 52.227-16, Additional Data Requirements, at any time during contract performance or within a period of 3 years after acceptance of all items to be delivered under the contract. The contractor is to be compensated for converting the data into the prescribed form, for reproduction, and for delivery. In order to minimize storage costs for the retention of data, the contractor may be relieved of retention requirements for specified data items by the contracting officer at any time during the retention period required by the clause. The contracting officer may permit the contractor to identify and specify in the contract data not to be ordered for delivery under the Additional Data Requirements clause if such data is not necessary to meet the Government's requirements for data. Also, the contracting officer may alter the Additional Data Requirements clause by deleting the term "or specifically used" in paragraph (a) thereof if delivery of such data is not necessary to meet the Government's requirements for data. Any data ordered under this clause will be subject to the Rights in

Data--General clause (or other equivalent clause setting forth the respective rights of the Government and the contractor) in the contract, and data authorized to be withheld under such clause will not be required to be delivered under the Additional Data Requirements clause, except as provided in Alternate II or alternate III, if included in the clause (see 27.404(d) and (e)).

(3) Agencies not having an established program for dissemination of computer software shall give consideration to not ordering additional computer software under the clause at 52.227-16, Additional Data Requirements, for the sole purpose of disseminating or marketing of the software to the public especially if this will provide the contractor additional incentive to make improvements to the software at its own expense and disseminate or market it. This should not preclude an agency from including a summary description of computer

software available from a contractor in any data dissemination programs which it operates, with a statement as to how the potential user can obtain it through the contractor, licensee, or assignee. In cases where the contracting officer orders software for internal purposes, consideration shall be given, consistent with the Government's needs, to not ordering particular source codes, algorithms, processes, formulae or flow charts of the software if the contractor shows that this aids its efforts to disseminate or market the software.

(c) Acceptance of Data. Acceptability of technical data delivered under a contract shall be in accordance with the appropriate contract clause as required by Subpart 46.3, and the clause at 52.227-21, Technical Data Certification, Revision, and Withholding of Payment--Major Systems, when it is included in the contract. (See paragraph (d) of this section.)

(d) Major System Acquisition. (1) In order to assure that technical data needed to support a major system acquisition are timely delivered and are complete, accurate, and satisfy the requirements of the contract concerning

the data, the clause at 52.227-21, Technical Data Certification, Revision, and Withholding of Payment--Major Systems, is to be included in contracts for or in support of a major system (as the term "major system" is defined in Section 4 of the Office of Federal Procurement Policy Act, as amended by Pub. L. 98-577), including every detailed design, development, or production contract for a major system acquisition and contracts for any individual part, component, subassembly, assembly, or subsystem integral to the major system, and other property which may be replaced during the service life of the system, and including spare parts and replenishment spare parts.

(2) The clause at 52.227-21, Technical Data, Certification, Revision, and Withholding of Payment--Major Systems, requires the contractor, upon delivery of any technical data made subject to the clause in the contract, to certify that to the best of its knowledge and belief, such data are complete, accurate, and comply with contract requirements. It also provides for corrections of any deficiencies in the data, as well as for the ability of the contracting officer to request revisions of the data to reflect engineering design changes made during performance of the contract and affecting form, fit, and function of the items the data depict. Further included is the authority for the contracting officer to withhold payment under the contract to assure timely delivery of the technical data and/or assure correction if the technical data are not complete, accurate, and in compliance with contract requirements.

(3) When the clause at 52.227-21, Technical Data, Certification, Revision and Withholding of Payment--Major Systems, is used, the section of the contract specifying data delivery requirements (see subparagraph (a)(2) of this section) shall expressly identify those line items of technical data to which the clause applies. Upon delivery of such technical data, the contracting officer or designee shall review the technical data and the contractor's certification relating thereto to assure that the data are complete, accurate, and comply with contract requirements. If not, the contractor is to be requested to correct the deficiencies, and payment may be withheld until such is done. Final payment should not be made under the contract until it has been determined that the delivery requirements of those line items of data to which the clause applies have been satisfactorily met.

(4) In a contract for or in support of a major system awarded by a civilian agency other than NASA or the U.S. Coast Guard the contracting officer shall include contractual provisions requiring, as an element of performance under the contract, the delivery of any technical data, other than computer software, relating to the major system or supplies for the major system procured or to be procured by the Government, which are to be developed exclusively with Federal funds in the performance of the contract if the delivery of such technical data is needed to ensure the competitive acquisition of supplies or services that will be required in substantial quantities in the future. The clause at 52.227-22, Major System--Minimum Rights, is to be included in such contracts in addition to the clause at 52.227-14, Rights in Data--General, and other required clauses, to ensure that the Government acquires at least those rights required by Pub. L. 98-577 in technical data developed exclusively with Federal funds. In any contract to which this subparagraph (d)(4) applies, technical data, other than computer software, relating to a major system or supplies for a major system, procured or to be procured by the Government and also relating to the design, development, or manufacture of products or processes offered or to be offered for sale to the public (except for such data as may be necessary for the Government to operate or maintain the product, or use the process if obtained by the United States as an element of performance under the contract), shall not be required to be provided to the Government from persons who have developed such products or processes as a condition for the procurement of such products or processes by the Government.

27.408 Cosponsored research and development activities.

(a) In contracts involving cosponsored research and development wherein the contractor is required to make substantial contributions of funds or resources (i.e., by cost-sharing or by repayment of nonrecurring costs), and the contractor's and the Government's respective contributions to any item, component, process, or computer software, developed or produced under the contract are not readily segregable, the contracting officer may limit the acquisition of or acquire less than unlimited rights to any data developed and delivered under such contract. Agencies may regulate the use of this authority in their supplements. Basically such rights should, at a minimum, assure use of the data for agreed-to Governmental purposes (including reprourement rights as appropriate), and will address any disclosure limitations or restrictions to be imposed on the data. Also, consideration may be given to directed licensing provisions if needed to carry out the objectives of the contract. Since the purpose of the

cosponsored research and development, the legitimate proprietary interests of the contractor, the needs of the Government, and the respective contributions of both parties may vary, no specific clauses are prescribed, but a clause providing less than unlimited rights in the Government for data developed and delivered under the contract (such as license rights) may be tailored to the circumstances consistent with the foregoing and the policy set forth in 27.402. As a guide, such clause may be appropriate when the contractor contributes money or resources, or agrees to make repayment of nonrecurring costs, of a value of approximately 50 percent of the total cost of the contract (i.e., Government, contractor, and/or third party paid costs), and the respective contributions are not readily segregable for any work element to be performed under the contract. Such clause may be used for all or for only specifically identified tasks or work elements under the contract. In the latter instance, its use will be in addition to whatever other data rights clause is prescribed under this subpart, with the contract specifically identifying which clause is to apply to which tasks or work elements. Further, such clause may not be appropriate where the purpose of the contract is to produce data for dissemination to the public, or to develop or demonstrate technologies which will be available, in any event, to the public for their direct use.

(b) Where the contractor's contributions are readily segregable (by performance requirements and the funding therefore) and so identified in the contract, any data resulting therefrom may be treated under such clause as limited rights data or restricted computer software in accordance with 27.404(d) or (e), as applicable; or if such treatment is inconsistent with the purpose of the contract, rights to such data may, if so negotiated and stated in the contract, be treated in a manner consistent with paragraph (a) of this section. Use of data that the U.S. Government has a right to use and disclose to others, that is in the public domain, or that was acquired by the U.S. Government with the unrestricted right to use, duplicate, or disclose and to have or permit others to do so;

(b) Foreign license and technical assistance agreements between the U.S. Government and United States domestic concerns;

© Guidance on negotiating contract prices and terms concerning patents and data, including royalties, in contracts between the U.S. Government and a foreign government or foreign concern; and

(d) Regulations and guidance on controls on the exportation of data relating to certain designated items, such as arms or munitions of war, and guidance on reviews of agreements involving such data (see 22 CFR 124).

APPENDIX B. DEFENSE FEDERAL ACQUISITION REGULATION SUPPLEMENT

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227.7203 Noncommercial computer software and noncommercial computer software documentation.

227.7203-1 Policy.

a) DoD policy is to acquire only the computer software and computer software documentation, and the rights in such software or documentation, necessary to satisfy agency needs.

(b) Solicitations and contracts shall-

- (1) Specify the computer software or computer software documentation to be delivered under a contract and the delivery schedules for the software or documentation;
- (2) Establish or reference procedures for determining the acceptability of computer software or computer software documentation;
- (3) Establish separate contract line-items, to the extent practicable, for the computer software or computer software documentation to be delivered under a contract and require offerors and contractors to price separately each deliverable data item; and
- (4) Require offerors to identify, to the extent practicable, computer software or computer software documentation to be furnished with restrictions on the government's rights and require contractors to identify computer software or computer software documentation to be delivered-with such restrictions prior to delivery.

© Offerors shall not be required, either as a condition of being responsive to a solicitation or as a condition for award, to sell or otherwise relinquish the Government any rights in computer software developed exclusively at private expense except for the software identified at 227.7203-5(a) (3) through (6).

(d) Offerors and contractors shall not be prohibited or discouraged furnishing or offering to furnish computer software developed exclusively at private expense solely because the Government's rights to use, modify, release, reproduce, perform, display, or disclose the software may be restricted.

227.7203-2 - Acquisition of noncommercial computer software and computer software documentation.

(a) Contracting officers shall work closely with data managers requirements personnel to assure that computer software and computer software documentation requirements included in solicitations are consistent with the policy expressed in 227.7203 (b)(1) Data managers or other requirements personnel are responsible for identifying the Government's minimum needs. In addition to desired software performance, compatibility, or other technical considerations, needs determinations should consider such factors as multiple site or shared use requirements, whether the Government's software maintenance philosophy will require the right to modify or have third parties modify the software, and any special computer software documentation requirements.

(2) When reviewing offers received in response to a solicitation or other request for computer software or computer software documentation, data managers must balance the assessment of the Government's needs with prices offered.

© Contracting officers are responsible for ensuring that, wherever practicable solicitations and contracts-

(1) Identify the types of computer software and the quantity of computer programs and computer software

- media in which the software or documentation will be delivered;
- (2) software and the quantity of computer programs and computer software documentation to be delivered, any requirements for multiple users at site or multiple site licenses, and the format and media in which the software or documentation will be delivered;
 - (2) Establish each type of computer software or computer software documentation to be delivered as a separate contract line item (this requirement may be satisfied by exhibit to the contract);
 - (3) Identify the prices established each separately priced deliverable item of computer software or computer software documentation under a fixed-price type contract;
 - (4) Include delivery schedules and acceptance criteria for each deliverable item; and
 - (5) Specifically identify the place delivery for each deliverable item.

252.227-7014. Rights in Noncommercial Computer Software and Noncommercial Computer Software Documentation.

- (a) The provision requires offerors to identify any computer software or computer software documentation for which restrictions, other than copyright, on use, modification, reproduction, release, performance, display, or disclosure are asserted and to attach the identification and assertion to the offer.
- (b) Subsequent to contract award, the clause at 252.227-7014 permits a contractor, under certain conditions, to make additional assertions of restrictions. The prescriptions for the use of that clause and its alternates are at 227.7203-6(a).

227.72034 License rights.

(a) Grant of license. The Government obtains rights in computer software or computer software documentation, including a copyright license, under an irrevocable license granted or obtained by the contractor which developed the software or documentation or the licensor of the software or documentation if the development contractor is not the licensor. The contractor or licensor retains all rights in the software or documentation not granted to the Government. The scope of a computer software license is generally determined by the source of funds used to develop the software. Contractors or licensors may, with some exceptions, restrict the Government's rights to use, modify, reproduce, release, perform, display, or disclose computer software developed exclusively or partially at private expense (see 227.7203-5 (b) and (c)). They may not, without the Government's agreement (see 227.7203-5(d)), restrict the Government's rights in computer software developed exclusively with Government funds or in computer software documentation required to be delivered under a contract.

(b) Source of funds determination. The determination of the source of funds used to develop computer software should be made at the lowest practicable segregable portion of the software or documentation (e.g., a software sub-routine that performs a specific function). Contractors may assert restricted rights in a segregable portion of computer software which otherwise qualifies for restricted rights under the clause at 252.227-7014, Rights in Noncommercial Computer Software and Noncommercial Computer Software Documentation.

227.72034 Government rights.

The standard license rights in computer software that a licensor grants to the Government are unlimited rights, government purpose rights, or restricted rights. The standard license in computer software documentation conveys unlimited rights. Those rights are defined in the clause at 252.227-7014, Rights in Noncommercial Computer Software and Noncommercial Computer Software Documentation. In unusual situations, the standard rights may not satisfy the Government's needs or the Government may be willing to lesser rights in return for other consideration. In those cases, a special license may be negotiated. However, the licensor is not obligated to provide the Government greater rights and the contracting officer is not required to accept lesser rights than the

rights

provided in the standard grant of license. The situations under which a particular grant of license applies are enumerated in paragraphs (a) through (d) of this subsection.

(a) Unlimited rights. The Government obtains an unlimited rights license in-

- (1) Computer software developed exclusively with Government funds;
- (2) Computer software documentation required to be delivered under a Government contract;
- (3) Corrections or changes to computer software or computer software documentation furnished to the contractor by the Government;
- (4) Computer software or computer software documentation that is otherwise publicly available or has been released or disclosed by the contractor or subcontractor without restrictions further use, release or disclosure other than a release or disclosure resulting from the sale, transfer, or other assignment of interest in the software to another party or the sale or transfer of some or all of a business entity or its assets to another party;
- (5) Computer software or computer software documentation obtained with unlimited rights under another Government contract or as a result of negotiations; or
- (6) Computer software or computer software documentation furnished the Government, under a Government contract or subcontract with-
 - (i) Restricted rights in computer software, limited rights in technical data, or government purpose license rights and the restrictive conditions have expired; or
 - (ii) Government purpose rights and the contractor's exclusive right to use such software or documentation for commercial purposes has expired.

(b) Government purpose rights.

(1) Except as provided in paragraph (a) of this subsection, the Government obtains government purpose rights in computer software developed with mixed funding.

(2) The period during which government purpose rights are effective is negotiable. The clause at 252.227-7014 provides a nominal five-year period. Either party may request a different period. Changes to the government purpose rights period may be made at any time prior to delivery of the software without consideration from either party. Longer periods should be negotiated when a five-year period does not provide sufficient time to commercialize the software or, for software developed by subcontractors, when necessary to recognize the subcontractors' interests in the software.

(3) The government purpose rights period commences upon execution of the contract, subcontract, letter contract (or similar contractual instrument), contract modification, or option exercise that required development of the computer software. Upon expiration of the government purpose rights period, the Government has unlimited rights in the software including the right to authorize others to use data for commercial purposes.

(4) During the government purpose rights period, the Government may use or authorize other persons to use computer software marked with government purpose rights legends for commercial purposes. The Government shall not release or disclose, or authorize others to release or disclose computer software in which it has government purpose rights to any person unless-

(i) Prior to release or disclosure, intended recipient is subject to the use and non-disclosure agreement 227.7103-7; or

(ii) The intended recipient is a Government contractor receiving the software for performance of a

Government contract that contains the clause at 252.227-7025, Limitations on the Use or Disclosure of Government-Furnished Information Marked with Restrictive Legends.

(5) When computer software marked with government purpose rights legends will be released or disclosed to a Government contractor performing a contract that does not include the clause at 252.227-7025, the contract may be modified, prior to release or disclosure to include such clause in lieu of requiring the contractor to complete a use and non-disclosure agreement.

(6) Contracting activities shall establish procedures to assure that computer software or computer software documentation marked with government purpose rights legends are released or disclosed, including a release or disclosure through a Government solicitation, only to persons subject to the use and non-disclosure restrictions. Public announcements in the Commerce Business Daily or other publications must provide notice of the use and

non-disclosure requirements. Class use and non-disclosure agreements (e.g., agreements covering all solicitations received by the XYZ company within a reasonable period) are authorized and may be obtained at any time prior to release or disclosure of the government purpose rights software or documentation. Documents transmitting government purpose rights software or documentation to persons under class agreements shall identify the specific software or documentation subject to government purpose rights and the agreement under which such software or documentation are provided.

© **Restricted rights**

- (1) The Government obtains restricted rights in noncommercial computer software required to be delivered or otherwise provided to the Government under a contract that were developed exclusively at private expense.
- (2) Contractors are not required to provide the Government additional rights in computer software delivered or otherwise provided to the Government with restricted rights. When the Government has a need for additional rights, the Government must negotiate with the contractor to determine if there are acceptable terms for transferring such rights. List or describe all software in which the contractor has granted the Government additional rights in a license agreement made part of the contract (see paragraph (d) of this subsection). The license shall enumerate the specific additional rights granted to the Government.

(d) **Specifically negotiated license rights.**

Negotiate specific licenses when the parties agree to modify the standard license rights granted to the Government or when the Government wants to obtain rights in computer software in which it does not have rights. When negotiating to obtain, relinquish, or increase the Government's rights in computer software, consider the planned software maintenance philosophy, anticipated time or user sharing requirements, and other factors which may have relevance for a particular procurement. If negotiating to relinquish rights in computer software documentation, consider the administrative burden associated with protecting documentation subject to restrictions from unauthorized release or disclosure. The negotiated license rights must stipulate the rights granted the Government to use, modify, reproduce, release, perform, display, or disclose the software or documentation and the extent to which the Government may authorize others to do so. Identify all negotiated rights in a license agreement made part of the contract.

(e) **Rights in derivative computer software or computer software documentation.**

The clause at 252.227-7014 protects the Government's rights in computer software, computer software documentation, or portions thereof that the contractor subsequently uses to prepare derivative software or subsequently embeds or includes in other software or documentation. The Government retains the rights it obtained under the development contract in the unmodified portions of the derivative software or documentation.

227.72034. **Copyright**

(a) **Copyright license.**

- (1) The clause at 252.227-7014, Rights in Noncommercial Computer Software and Noncommercial Computer Software Documentation, requires a contractor to grant, or obtain for the Government license rights which permit the Government to reproduce the software or documentation, distribute copies, perform or display the software or documentation and, through the right to modify data, prepare derivative works. The extent to which the Government, and others acting on its behalf, may exercise these rights varies for each of the standard data rights licenses obtained under the clause. When non-standard license rights in computer software or computer software documentation will be negotiated, negotiate the extent of the copyright license concurrent with negotiations for the data rights license. Do not negotiate copyright licenses for computer software that provide less rights than the

standard restricted rights in computer software license. For computer software documentation, do not negotiate a copyright license that provides less rights than the standard limited rights in technical data license.

(2) The clause at 252.227-7013, Rights in Technical Data-Noncommercial Items, does not permit a contractor to incorporate a third party's copyrighted software into a deliverable software item unless the contractor has obtained an appropriate license for the Government and, when applicable, others acting on the Government's behalf, or has obtained the contracting written approval to do so. Grant approval to use third party copyrighted software in which the Government will not receive a copyright license only when the Government's requirements cannot be satisfied without the third party material or when the use of the third party material will result in cost savings to the Government which outweigh the lack of a copyright license.

(b) Copyright considerations-special works. See 227.7205 for copyright considerations when acquiring special works.

227.7203-10 Contractor identification and marking of computer software or computer software documentation to be furnished with restrictive markings.

(a) Identification requirements:

(1) The solicitation provision at 252.227- 7017, Identification and Assertion of Use, Release, or Disclosure Restrictions, requires offerors to identify, prior to contract award, any computer software or computer software documentation - that an offeror asserts should be provided to the Government with restrictions on use, modification, reproduction, release or disclosure. This requirement does not apply to restrictions based solely on copyright. The notification and identification must be submitted as an attachment to the offer. If an offeror fails to submit the attachment or fails to complete the attachment in accordance with the requirements of the solicitation provision, such failure shall constitute a minor informality. Provide offerors an opportunity to remedy a minor informality in accordance with the procedures at FAR 14.405 or 15.607. An offeror's failure to correct an informality within the time prescribed by the contracting officer shall render the offer ineligible for award.

(2) The procedures for correcting minor informalities shall not be used to obtain information regarding asserted restrictions or an offeror's suggested asserted rights category. Questions regarding the justification for an asserted restriction or asserted rights category must be pursued in accordance with the procedures at 227.7203-13.

(3) The restrictions asserted by a successful offeror shall be attached to its contract unless, in accordance with the procedures at 227.7203-13, the parties have agreed that an asserted restriction is not justified. The contract attachment shall provide the same information regarding identification of the computer software or computer software documentation, the asserted rights category, the basis for the assertion, and the name of the person asserting the restrictions as required by paragraph (d) of the solicitation provision at 252.227- 7017. Subsequent to contract award, the clause at 252.227-7014, Rights in Noncommercial Computer Software and Noncommercial Computer Software Documentation, permits a contractor to make additional assertions under certain conditions. The additional assertions must be made in accordance with the procedures and in the format prescribed by that clause.

(4) Neither the pre- or post-award assertions made by the contractor nor the fact that certain assertions are identified in the attachment to the contract, determine the respective rights of the parties. As provided at 227.7203-13, the Government has the right to review, verify, challenge and validate restrictive markings.

(5) Information provided by offerors in response to the solicitation provision at 252.227-7017 may be used in the source selection process to evaluate the impact on evaluation factors that may be created by restrictions on the Government's ability to use or disclose computer software or computer software documentation.

(b) Contractor marking requirements.

The clause at 252.227-7014, Rights in Noncommercial Computer Software and Noncommercial Computer Software Documentation-

(1) Requires a contractor who desires to restrict the Government's rights in computer software or computer

software documentation to place restrictive markings on the software or documentation, provides instructions for the placement of the restrictive markings, and authorizes the use of certain restrictive markings. When it is anticipated that the software will or may be used in combat or situations which simulate combat conditions, do not permit contractors to insert instructions into computer programs that interfere with or delay operation of the software to display a restrictive rights legend- or other license notice; and

(2) Requires a contractor to deliver, furnish, or otherwise provide to the Government any computer software or computer software documentation in which the Government has previously obtained rights with the Government's preexisting rights in that software or documentation unless the parties have agreed otherwise or restrictions on the Government's rights to use, modify, produce, release, or disclose the software or documentation have expired. When restrictions are still applicable, the contractor is permitted to mark the software or documentation with the appropriate restrictive legend.

© Unmarked computer software or computer software documentation.

(1) Computer software or computer software documentation delivered or otherwise provided under a contract without restrictive markings shall be presumed to have been delivered with unlimited rights and may be released or disclosed without restriction. To the extent practicable, if a contractor has requested permission (see paragraph (c)(2) of this subsection) to correct an inadvertent omission of markings, do not release or disclose the software or documentation pending evaluation of the request.

(2) A contractor may request permission to have appropriate legends placed on unmarked computer software or computer software documentation at its expense. The request must be received by the contracting officer within six months following the furnishing or delivery of such software or documentation, or any extension of that time approved by the contracting officer. The person making the request must-

(i) Identify the software or documentation that should have been marked

(ii) Demonstrate that the omission of the marking was inadvertent, the proposed marking is justified and conforms with the requirements for the marking of computer software or computer software documentation contained in the clause at 252.227- 7014; and

(iii) Acknowledge, in writing, that the Government has no liability with respect to any disclosure, reproduction, or use of the software or documentation made prior to the addition of the marking or resulting from the omission of the marking.

(3) Contracting officers should grant permission to mark only if the software or documentation were not distributed outside the Government or were distributed outside the Government with restrictions on further use or disclosure.

227.7203-15 Subcontractor rights in computer software or computer software documentation.

(a) Subcontractors and suppliers at all tiers should be provided the same protection for their rights in computer software or computer software documentation as are provided to prime contractors.

(b) The clauses at 252.227-7019, Validation of Asserted Restrictions-Computer Software, and 252.227-7037, Validation of Restrictive Markings on technical Data, obtain a contractor's agreement that the Government's, transaction of validation or challenge matters directly with subcontractors at any tier does not establish or imply privity of contract. When a subcontractor or supplier exercises its right to transact validation matters directly with the Government, contracting officers shall deal directly with such persons, as provided at 227.7203-13© for computer software and 227.7103-13(c)(3) for computer software documentation (technical data).

© Require prime contractors whose contracts include the following clauses to include those clauses, without modification except for appropriate identification of the parties, in contracts with subcontractors or suppliers who

will be furnishing computer software in response to a Government requirement (see 227.7103-15© for clauses required when subcontractors or suppliers will be furnishing computer software documentation (technical data)):

- (1) 252.227.7014, Rights in Noncommercial Computer Software and Noncommercial Computer Software Documentation;
- (2) 252.227.7019, Validation of Assert-ed Restrictions-Computer Software;
- (3) 252.227.7025, Limitations on the Use or Disclosure of Government Furnished Information Marked with Restrictive Legends; and
- (4) 252.227.7028, Technical Data or Computer Software Previously Delivered to the Government.

(d) Do not require contractors to have their subcontractors or suppliers at any time relinquish rights in technical data to the contractor, a higher tier subcontractor, or to the Government, as a condition for award of any contract, subcontract, purchase order, or similar instrument except for the rights obtained by the Government under the provisions of the Rights in Noncommercial Computer Software and Noncommercial Computer Software Documentation clause contained in the contractor's contract with the Government.

227.720516 Providing computer software or computer software documentation to foreign governments, foreign contractors, or international organizations.

Computer software or computer software documentation may be released or disclosed to foreign governments, foreign contractor or international organizations only if release or disclosure is otherwise permitted both by Federal export controls and other national security laws or regulations. Subject to such laws and regulations, the Department of Defense-

- (a) May release or disclose computer software or computer software documentation in which it has obtained unlimited rights to such foreign entities or authorize the use of such data by those entities; and
- (b) Shall not release or disclose computer software or computer software documentation for which restrictions on use, release, or disclosure have been asserted to such foreign entities or authorize the use of such data by those entities, unless the intended recipient is subject to the same provisions as included in the use and non-disclosure agreement at 227.7103-7 and the requirements of the clause at 252.227-7014, Rights in Noncommercial Computer Software and Noncommercial Computer Software Documentation, governing use, modification, reproduction, release, performance, display, or disclosure of such data have been satisfied.

227.7205 Contracts for special works.

- (a) Use the clause at 252.227-7020, Rights in Special Works, in solicitations and contracts where the Government has a specific need to control the distribution of computer software or computer software documentation first produced, created, or generated in the performance of a contract and required to be delivered under that contract, including controlling distribution by obtaining an assignment of copyright, or a specific need to obtain indemnity

for liabilities that may arise out of the creation, delivery, use, modification, reproduction, release, performance, display, or disclosure of such software or documentation. Use the clause-

- (1) In lieu of the clause at 252.227-7014, Rights in Noncommercial Computer Software and Noncommercial Computer Software Documentation, when the Government must own or control copyright in all software or computer software documentation first produced, created or generated and required to be delivered under a contract; or
- (2) In addition to the clause at 252.227-7014 when the Government must own or control copyright in some of the computer software or computer software documentation first produced, created, or generated and required to be delivered under a contract. The specific software or documentation in which the Government must own or control copyright must be identified in a special contract requirement.

(b) Although the Government obtains an assignment of copyright and unlimited rights in the computer software or computer software documentation delivered as a special work under the clause at 252.227-7020, the contractor retains use and disclosure rights in that software or documentation. If the Government needs to restrict a contractor's rights to use or disclose a special work, it must also negotiate a special license which specifically restricts the contractor's use or disclosure rights.

© The clause at 252.227-7020 does not permit a contractor to incorporate into a special work any work copyrighted by others unless the contractor obtains the contracting officer's permission to do so and obtains for the Government a non-exclusive, paid up, world-wide license to make and distribute copies of that work, to prepare derivative works, to perform or display any portion of that work, and to permit others to do so for government purposes. Grant mission only when the Government's requirements cannot be satisfied unless the third party work is included in the deliverable work.

(d) Examples of other works which may be procured under the clause at 252.227-7020 include, but are not limited to, audiovisual works, scripts, soundtracks, musical compositions, and adaptations; histories of departments, agencies, services or units thereof; surveys of Government establishments; instructional works or guidance to Government officers and employees on the discharge of their official duties; reports, books, studies, surveys or similar documents; collections of data containing information pertaining to individuals that, if disclosed, would violate the right of privacy or publicity of the individuals to whom the information relates; or investigative reports.

APPENDIX C. INDUSTRY SURVEY

LT Robert B. Birmingham
Naval Postgraduate School
2 University Cir - SGC 1154
Monterey CA, 93943-2657

Dear Sir or Madam,

My name is Lieutenant Rob Birmingham. I am a U.S. Navy Supply Corps officer working on a Master's degree in acquisition and contracting at the Naval Postgraduate School in Monterey, California. As part of my degree requirements, I am preparing a thesis on the use of intellectual property rights for noncommercial software procurement.

The focus of my research is the use and effectiveness of the Department of Defense's current approach to intellectual property rights. Specifically, I am interested in your perspective as a member of the department of defense. To this end I have enclosed a short survey designed to take 10 to 15 minutes to complete. It would be a great help if you could complete the survey and return it to me. If at all possible I would ask you to **FAX** the completed survey no later than 24 November 1995 to LT Rob Birmingham, section MR44, Naval Postgraduate School, SGC 1154, Monterey CA.
NPS FAX 408-656-2138, DSN 878-2138.

Your response to my survey will be totally confidential. I am the only person who will see the completed surveys, and they will be destroyed upon the completion of my research. No names of companies or individuals will appear in the thesis. Additionally, my research and the questions included in the survey do not necessarily represent the views of the Department of Defense, the U.S. Navy, or the Navy Postgraduate school.

If you have questions or comments regarding my research, please feel free to write to me at the above address or contact me via my voice mail, (408) 656-2536/2537, extension 1154. Additional information can also be sent to me via Fax at (408) 656 -2138. Please ensure any faxes are clearly addressed to LT Rob Birmingham, section MR44. I can also receive comments or responses via E-mail. My address is YUUH91A@prodigy.com.

I want to thank you in advance for your assistance.

Sincerely,
Rob Birmingham
LT SC USN

INDUSTRY SURVEY

1. Amount of Annual Business w/ DoD. (Check one)

- | | |
|--------------------------------|-----------------------------------|
| A. Under \$100,000 _____ | E. 5,000,001 - 10,000,000 _____ |
| B. 100,000 - 500,000 _____ | F. 10,000,001 - 50,000,000 _____ |
| C. 500,001 - 1,000,000 _____ | G. 50,000,001 - 100,000,000 _____ |
| D. 1,000,001 - 5,000,000 _____ | H. Over 100,000,000 _____ |

2. Number of Employees: (check one)

- | | |
|---------------------|-------------------------|
| A. Under 50 _____ | E. 1,001 - 5,000 _____ |
| B. 50 - 100 _____ | F. 5,001 - 10,000 _____ |
| C. 101 - 500 _____ | G. Over 10,000 _____ |
| D. 501 - 1000 _____ | |

3. What is your primary product or service? _____

4. What type of legal protection do you normally seek in contracts involving ownership of noncommercial software with the DoD?

5. Is this different from your commercial contracts? Yes _____ No _____

6. Has the DoD ever exercised the Government's rights in any of your software contracts?

Yes _____ No _____

If yes, please explain.

7. Do you find the DoD contracts involving software intellectual property rights are confusing? Yes _____ No _____

8. Would there be less confusion if the Government used commercial language in their

software contracts? Yes _____ No _____

If yes, please explain.

9. Are you familiar with "specifically negotiated license rights?" Yes _____ No _____

If yes, what do you see as the advantages?

Please indicate your agreement or disagreement with each of the following statements

- | | 1 | 2 | 3 |
|-----|--|---------|----------|
| | Agree | Neutral | Disagree |
| 10. | _____ DoD Contracting Officers have a good understanding of intellectual property rights involving software. | | |
| 11. | _____ DoD Contracting Officers have a good understanding of software terminology and development. | | |
| 12. | _____ DoD Contracting Officers normally negotiate only the minimum set of intellectual property rights of software necessary for the Government's purpose. | | |
| 13. | _____ Regardless of the source of funds, DoD Contracting Officers normally negotiate unlimited rights for software ownership. | | |
| 14. | _____ I frequently have significant differences with Contracting Officers negotiation position on intellectual property rights of noncommercial software. | | |
| 15. | _____ Copyright protection, and consequently licensing avenues, should extend to noncommercial software owned by the U.S. Government. | | |
| 16. | _____ The current DoD approach is sufficiently flexible to provide adequate access to software to the majority of contractors. | | |
| 17. | How would you characterize DoD's intellectual property rights policy of software? | | |
| 18. | What recommendations does your company have that would improve DoD policy on intellectual property rights as it currently exists. | | |

APPENDIX A - INDUSTRY RESPONSES

1. Amount of Annual Business w/ DoD.

A. Under \$100,000	<u>8</u>	E. 5,000,001 - 10,000,000	<u>-</u>
B. 100,000 - 500,000	<u>4</u>	F. 10,000,001 - 50,000,000	<u>-</u>
C. 500,001 - 1,000,000	<u>4</u>	G. 50,000,001 - 100,000,000	<u>5</u>
D. 1,000,001 - 5,000,000	<u>-</u>	H. Over 100,000,000	<u>8</u>

2. Number of Employees:

A. Under 50	<u>8</u>	E. 1,001 - 5,000	<u>4</u>
B. 50 - 100	<u>8</u>	F. 5,001 - 10,000	<u>5</u>
C. 101 - 500	<u>-</u>	G. Over 10,000	<u>-</u>
D. 501 - 1000	<u>4</u>		

3. What is your primary product or service?

- ☐ Research and Development Services in Radar/Surveillance Area.
- ☐ Hi Tech R&D.
- ☐ Research and Development. Only approx. 25% deal directly with software which is primarily developed on SBIR programs.
- ☐ Engineering/Technical support to Navy labs, primarily related to underwater acoustics; engineering/program management support to NAVSEA.
- ☐ Communications, E.W.
- ☐ Security-Defense Preparedness. Mainly work with DOE.
- ☐ Production and software engineering.
- ☐ Systems Integration and Analysis.
- ☐ Engineering and Technical Services.
- ☐ Advanced Engineering, R & D.
- ☐ Small Diversified R & D firm.
- ☐ Wide area communications networks.
- ☐ Mainly we do software development and engineering.
- ☐ Engineering Design and Analysis.
- ☐ Communications and data systems.
- ☐ Simulation and modeling.

4. **What type of legal protection do you normally seek in contracts involving ownership of noncommercial software with the DoD?**

- ☐ We try to retain as many rights as possible -sometimes with commercial that is not possible.
- ☐ We normally copyright our own software, but grant DoD a non exclusive license to use it for DoD purposes only. If a patent is appropriate, we also use that avenue.
- ☐ Typically, we have "copyrighted" our own noncommercial software.
- ☐ We try to get the proper FAR clause included in the contract and disclose and negotiate "limited" rights to any company software before signing this contract.
- ☐ Question is unclear. We often employ patent, trade secret, and copyright protection to protect our software. Within a DoD contract, we will attempt to deliver software with restricted rights or Government Purpose Rights, if the software was developed entirely or partially with non-contract funding.
- ☐ One patented software product and copyrights.
- ☐ Attempt to negotiate some type of Government Purpose Rights though development of software is limited.

5. **Is this different from your commercial contracts?** Yes 12 No 17

Additional comments:

- ☐ We have only a small % (less than 1%) of our business in the commercial area.
- ☐ Our only "commercial" contracts are subcontracts to or from other DoD prime contractors.
- ☐ The type of legal protection (patent, etc.) is the same, the rights granted to the commercial user are different.
- ☐ Would seek to obtain very limited rights in our commercial contracts.

6. **Has the DoD ever exercised the Government's rights in any of your software contracts?**

Yes 9 No 20

If yes, please explain.

- ☐ If you mean, "Unlimited," "Restricted," or "Government Purpose" rights - the respective rights govern the manner in which the Government can use the software, so the answer to your question is yes.

- ☐ Only when it was clear and agreed by both parties that the software was developed exclusively at Government expense.

7. **Do you find the DoD contracts involving software intellectual property rights are confusing?** Yes 21 No 8

Additional comments:

- ☐ Difficult.
- ☐ You have to spend the time and effort to be sure you have protected your companies rights when the contract is negotiated.

8. **Would there be less confusion if the Government used commercial language in their software contracts?** Yes 9 No 20

Additional comments:

- ☐ I believe the structure (FAR) is in place to insure preservation of software rights in light of the new FAR streamlining changes.
- ☐ Industry is more familiar with language in commercial software contracts though it would certainly lead to increased litigation.

9. **Are you familiar with “specifically negotiated license rights?”** Yes 18 No 11

If yes, what do you see as the advantages?

- ☐ We get to understand our position before we develop the software so that we can adjust our development accordingly.
- ☐ It allows a company to try and customize the rights to fix the unique conditions.
- ☐ Only in concept, not from experience. Valid concept, if license violations result in severe penalties to the abusers.
- ☐ The flexibility is a plus. My experience is that most contracting officers are hesitant to negotiate anything other than standard (Unlimited, Limited, and Government Purpose).

- ☐ A disadvantage from the contractors perspective is that it could force the developer to bid on follow on efforts to recover costs.

Please indicate your agreement or disagreement with each of the following statements

1
Agree

2
Neutral

3
Disagree

10. _____ **DoD Contracting Officers have a good understanding of intellectual property rights involving software.**

3
Agree

13
Neutral

13
Disagree

Additional comments:

- ☐ DoD contracting personnel have a zero level of understanding of intellectual property rights in noncommercial software.

11. _____ **DoD Contracting Officers have a good understanding of software terminology and development.**

4
Agree

9
Neutral

16
Disagree

Additional comments:

- ☐ ...DoD contracting personnel have a zero level of understanding of software terminology.

12. **DoD Contracting Officers normally negotiate only the minimum set of intellectual property rights of software necessary for the Government's purpose.**

4	11	14
Agree	Neutral	Disagree

13. **Regardless of the source of funds, DoD Contracting Officers normally negotiate unlimited rights for software ownership.**

3	13	13
Agree	Neutral	Disagree

Additional comments:

- ☐ At least they try to do this.

14. **I frequently have significant differences with Contracting Officers negotiation position on intellectual property rights of noncommercial software.**

18	0	11
Agree	Neutral	Disagree

15. **Copyright protection, and consequently licensing avenues, should extend to noncommercial software owned by the U.S. Government.**

21	8	0
Agree	Neutral	Disagree

16. **The current DoD approach is sufficiently flexible to provide adequate access to software to the majority of contractors.**

7	7	15
Agree	Neutral	Disagree

17. **How would you characterize DoD's intellectual property rights policy of software?**

- ☐ Begining to recognize industries interest in ownership.
- ☐ Fragmented.
- ☐ Ineffective.
- ☐ They normally want unlimited rights in every software program. Regardless of who funded the development.
- ☐ Too many regulations.
- ☐ Fairly reasonable. Mixed-funding situations cause the most problems.
- ☐ No matter what the Government negotiates, it feels it can just come in and do whatever its wants to industry.
- ☐ Very confusing and detailed.

18. **What recommendations does your company have that would improve DoD policy on intellectual property rights as it currently exists.**

- ☐ We would like exclusive rights of license to use.
- ☐ Provide a uniform policy.
- ☐ The Government must recognize the benefit of co-sponsoring software development and sharing in the rewards.
- ☐ Tie the rights to the intellectual property, not the software itself.
- ☐ Enforce penalties for violations.
- ☐ Encourage contracting officers to utilize the "specifically negotiated license rights" more often.

APPENDIX D. DOD SURVEY

LT Robert B. Birmingham
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Your response to my survey will be totally confidential. I am the only person who will see the completed surveys, and they will be destroyed upon the completion of my research. No names of companies or individuals will appear in the thesis. Additionally, my research and the questions included in the survey do not necessarily represent the views of the Department of Defense, the U.S. Navy, or the Navy Postgraduate school.

If you have questions or comments regarding my research, please feel free to write to me at the above address or contact me via my voice mail, (408) 656-2536/2537, extension 1154. Additional information can also be sent to me via Fax at (408) 656 -2138. Please ensure any faxes are clearly addressed to LT Rob Birmingham, section MR44. I can also receive comments or responses via E-mail. My address is YUUH91A@prodigy.com.

I want to thank you in advance for your assistance.

Sincerely,
Rob Birmingham
LT SC USN

DoD Survey

1. What is your title or position?
2. What type of legal protection do you normally seek in contracts involving ownership of noncommercial software?
3. Have you ever needed to exercise those rights? Yes _____ No _____
If yes, to what extent were you successful?

Please indicate your agreement or disagreement with each of the following statements

- | 1 | 2 | 3 |
|-------|---------|----------|
| Agree | Neutral | Disagree |
-
4. _____ DoD Contracting Personnel have a good understanding of intellectual property rights involving software.
 5. _____ DoD Contracting Personnel have a good understanding of software terminology and development.
 6. _____ DoD Contracting Personnel normally negotiate only the minimum set of intellect property rights of software necessary for the company's purpose.
 7. _____ Regardless of the source of funds, DoD Contracting Personnel normally negotiate unlimited rights for software ownership.
 8. _____ It is in the best interest of the DoD to obtain unlimited rights in noncommercial software procurement.
 9. _____ I frequently have significant differences with Industry's Contracting Personnel negotiation position on intellectual property rights of noncommercial software.
 10. _____ Copyright protection, and consequently licensing avenues, should extend to noncommercial software owned by the U.S. Government.
 11. _____ The current DoD approach is sufficiently flexible to provide adequate access to software to the majority of contractors.
 12. Are you familiar with "specifically negotiated license rights?" Yes _____ No _____
If yes, what do you see as the advantages?
 13. What recommendations does your organization have that would improve DoD policy on intellectual property rights of software as it currently exists.

LIST OF REFERENCES

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